



Kuwait University
| Faculty of Pharmacy

Student Handbook

2019-2020

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Faculty of Pharmacy
Abdulmohsen Al-Abdulrazzak
Health Sciences Center
Kuwait University

Student Handbook
Academic Year 2019-2020

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Disclaimer

Every effort has been made to ensure that this handbook contains correct information and is free from errors. However, The Faculty of Pharmacy will not accept responsibility for any errors or omissions contained therein.

Students are strongly advised to consult with the appropriate University Authorities, the Dean of the Faculty of Pharmacy, the Vice-Dean for Academic and Student Affairs, the Vice-Dean for Research and Postgraduate Studies, and the Student Affairs office at the Faculty of Pharmacy, for clarification of any issues or regulations stated in this Handbook.

The student handbook is produced by the office of the Vice-Dean for Academic and Student Affairs, Faculty of Pharmacy, Health Sciences Center, Kuwait University.

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Dean's Message

Dear students,

The role of pharmacists is expanding worldwide to improve the care of patients by optimizing their medication regimen. “Patient-centered” care is the new driver for pharmacy education and practice. Indeed, a lot of errors, interactions, side effects and other drug-related problems are preventable by well-trained pharmacists working actively with other healthcare professionals. There is no reason why this should not be the case in Kuwait as well. But this objective starts with motivated students who will stand out and make a difference, not with those who will blend in indifference... Your Faculty of Pharmacy is committed to bring pharmacy education to the highest standards. You will therefore have the option to continue your studies into the add-on PharmD at the end of the five years of the BPharm. Places are limited so please work conscientiously to be amongst those who will be the pioneers in developing clinical pharmacy in Kuwait for the benefit of the population and to be engaged in a fantastic career.

You will have new colleagues here at the Faculty and if everyone works together you will achieve greater results. The literature on academic success clearly identifies peer collaboration as a key component. By working together, teaching each other, helping each other, you will not only form a unified cohort and a better group, but you will improve your chance of success. As the pharmacy community is small and tightly knit, getting engaged with your peers will also serve you in the future. Of course, you will be able to count on the dynamism and commitment of the instructors, professors and employees working here. I am convinced that by working together we will be key accomplices of your efforts to build a bright future.

Another important component of having success is setting your own goals. These goals should be high enough to stimulate you to surpass your past achievements and become the best pharmacists you can be. But these goals should not be too high to paralyze you or make you uncomfortable. The key is to challenge you and not necessarily compare yourself to others. Learning is not a competition, but a long and pleasant journey. To reach the destination, you have to know where you want to go and enjoy the ride. As your first assignment from me, I would like you to take one hour alone and think about

your goals, about your destination. Write it down and read it regularly so you do not lose focus along the way.

Again, remember that pharmacy practice can be fun and challenging and a lot will depend on your willingness to become competent pharmacists that care for patients. We will help you towards that goal, but the motivation has to come from yourself.

I am looking forward to meeting you all and to lead the Faculty during your education. I will surely call upon you during the next few years to help us shape the Faculty of the future.

Pierre Moreau, B.Pharm., Ph.D.

Dean, Faculty of Pharmacy

The Pharmacy Profession

The pharmacy profession provides opportunities for pharmacists in a wide range of setting including hospital pharmacy, community pharmacy (chain or independently owned), home health care, long-term care, nuclear pharmacy, pharmaceutical industry (including areas of research, drug development, clinical trials, quality control, production, marketing and regulatory affairs), government (including Public Health Services, Drug Control and regulatory authorities, Ministry of Defense, and Ministry of Interior,) and specialty clinical practice areas (e.g., cardiology, cancer chemotherapy, nutritional support, drug information, pharmacokinetics, geriatrics, pediatrics and others).

In the past three decades, pharmacy practice around the world has experienced a gradual shift away from the technical paradigm, which emphasized drug products and their preparation, toward a more disease- and patient-oriented approach to pharmaceutical decision-making. Pharmaceutical decision-making has been strengthened by the institutional pharmacist's access to clinical data and the underlying inter-professional support of changing practice patterns and functions of pharmacists. Pharmacists work with the other healthcare professionals and the patient to help assure appropriate use of an ever-increasing spectrum of effective medications. A particular emphasis is educating and motivating patients with respect to the management of their drug therapy as related to their particular medical condition. Overall, the pharmacist is expected to provide pharmaceutical care and optimize patient drug therapy.

The pharmacy curriculum leading to the Bachelor of Pharmacy (BPharm) offered by the Faculty of Pharmacy at Kuwait University, provides the educational background to allow graduates to enter any of the practice areas of pharmacy. The curriculum also prepares students to enter advanced study leading to the M.S. or Ph.D. degree in one of the pharmaceutical sciences (e.g., pharmacy practice, pharmaceutical chemistry, pharmacology, pharmaceutics etc.), While, the Doctor of Pharmacy (PharmD) program which was launched in 2016/2017 academic year, provides advanced training in the area of pharmaceutical care to graduate Pharmacists who are capable of practicing in the interdisciplinary health care team and will be prepared to join post-graduate residency programs in general or specialty practice areas.

Clinical pharmacists work directly with other health professionals, and patients to ensure that the medications prescribed for patients contribute to the best possible health outcomes. Clinical pharmacists practice in

health care settings where they have frequent and regular interactions with physicians and other health professionals, contributing to better coordination of care. The clinical pharmacist is educated and trained in direct patient care environments, including medical centers, clinics, and a variety of other health care settings. Clinical pharmacists are frequently granted patient care privileges by collaborating physicians and/or health systems that allow them to perform a full range of medication decision-making functions as part of the patient's health care team. These privileges are granted on the basis of the clinical pharmacist's demonstrated knowledge of medication therapy and record of clinical experience. This specialized knowledge and clinical experience is usually gained through residency training and specialist board certification.

Requirements for Entry into the Pharmacy Profession

Education: To become a licensed pharmacist, it is necessary to meet certain requirements of education and experience. Graduation from an approved school of pharmacy is required.

Practice Experience: Practical experience in different pharmacy settings is required. The BPharm curriculum at Kuwait University include experiential training in community pharmacy, hospital pharmacy, and clinical setting. The PharmD program will have five clinical rotations, 5-6 weeks long, in addition to a sixth rotation which does not involve direct patient care.

Licensure: Graduates of the pharmacy program in Kuwait University or graduates from approved schools of pharmacy can apply to the Ministry of Health to obtain a license that allow them to practice as pharmacists.

Regulations of the Pharmacy Profession in Kuwait

In Kuwait, Ministry of Health, through appropriate legislations, controls and regulates the licensing of pharmacists, the way in which pharmacy is practiced and the licensing and approval for sales of medicines. Kuwait Pharmaceutical Association (KPA) is the state professional association for practicing pharmacists. KPA adopted a "Code of Conduct", for pharmacists to guide them in the practice of their profession.

Kuwait University

Kuwait University accepted its first students in October 1966, five years after the establishment of the sovereign State of Kuwait. At its inception, the University consisted of only two colleges – College of Science, Arts and Education and the Women’s College. It opened with 418 students and a teaching staff of 31. Today the total number of students is over 18,000. There are more than 1,300 academic staff teaching in 17 faculties.

Kuwait University Administration

- **Chancellor, his Excellency the Minister of Education & Higher Education:**
Dr. Hamed Al-Azmi
- **Kuwait University President:**
Prof. Hussain Ahmed Al-Ansari
- **Acting Vice President for Health Sciences Center:**
Prof. Adel Al-Hunayan
- **Acting Vice President for Academic Affairs:**
Dr. Jasim Y. Al-Kandari
- **Vice President for Research:**
Dr. Jasim Y. Al-Kandari
- **Vice President for Academic Support Services:**
Dr. Jasim R. Al-Kandari
- **Vice President for Planning:**
Dr. Adel A. Al-Hussainan
- **Secretary General:**
Dr. Muthana Al-Rifai

Abdulmohsen Al-Abdulrazzak Health Sciences Center

Kuwait University established the Health Sciences Center on Jabriya Campus in 1982. On December 2006 Kuwait University Council agreed to name that center as Abdulmohsen Al-Abdulrazzak Health Sciences Center (HSC) in appreciation of the contribution of Professor Abdulmohsen Y. Al-Abdulrazzak to the development and maintenance of health sciences in Kuwait both academically and professionally.

Health Sciences Center consists of five faculties

- Faculty of Medicine (established in 1973)
- Faculty of Allied Health Sciences (established in 1982)
- Faculty of Pharmacy (established in 1996)
- Faculty of Dentistry (established in 1996)
- Faculty of Public Health (established in 2013)

The HSC includes other facilities such as the Library, Computer Center, the Medical Illustration & Photography Unit, the English Language Unit and the Animal Resources Center.

HSC Mission Statement

The HSC exists to provide for the orderly education, training and development of health professionals in Kuwait to the highest international standard. This is accomplished by:

- Promoting and ensuring the continuous for pursuit excellence in teaching, research and professional service in the four faculties
- Providing the space, facilities and support services needed to enable the four faculties to pursue the HSC mission and their individual missions
- Providing the milieu for the development of professionals in health sciences through the provision of model facilities that will enable exemplary treatment and educational opportunities
- Promoting cooperation and collaboration among the four faculties by initiating the orderly development of programs of interdisciplinary study
- Avoiding duplication of programs and facilities among the four faculties
- Recruiting well-qualified professionals by offering a career pattern that rewards excellence and accomplishment.

Officers of the HSC

The Vice-President of Kuwait University for HSC is responsible for the center

executive administration, together with the Deans of the five faculties:

- **Vice-President:** Prof. Adel Al-Hunayan
- **Dean, Faculty of Medicine:** Prof. Adel K. Ayed
- **Dean, Faculty of Dentistry:** Dr. Adel A. Al-Asfour
- **Dean, Faculty of Pharmacy:** Prof. Pierre Moreau
- **Dean, Faculty of Allied Health Sciences:** Prof. Suad M. Al-Fadhli
- **Dean, Faculty of Public Health:** Prof. Harri Vainio

Governance of HSC

HSC Deans' Committee Membership:

- Vice-President HSC (Chair)
- Assistant Vice-President HSC
- Dean, Faculty of Medicine
- Dean, Faculty of Dentistry
- Dean, Faculty of Pharmacy
- Dean, Faculty of Allied Health Sciences
- Dean, Faculty of Public Health

Terms of Reference

The Committee shall:

- Approve and make recommendations for the integration of the four faculties under the umbrella of the HSC
- Approve and make recommendations for the expansion and allocation of Faculty of Medicine's pre-clinical Departments to serve the needs of the other HSC faculties
- Approve and recommend studies, policies and programs for the planning and implementation of new developments within the center and report these to Kuwait University Deans' Council and President
- Recommend to the University Deans' Council the size of the annual student intake of the constituent faculties
- Deal with any matters referred to this Committee by the HSC Vice-President and/or the Deans of the HSC individual faculties

Meeting

The Committee shall meet at the call of the Chair

Faculty of Pharmacy

Historical Background

Proposals to develop the Faculty of Pharmacy were circulated at Kuwait University as early as 1972. However, it was until February 3, 1996, that the Amiri Decree established the Faculty officially.

Recruitment of staff and the development of the curriculum started thereafter. Currently the Faculty has 35 full-time academic staff members in four academic departments. Approximately 300 students are enrolled in the 5-year BPharm program. The following Table shows the numbers of students enrolled in the Faculty and graduated from the year of its establishment till now.

Academic Year	Number of Admitted Students	Number of Graduated Pharmacists
1997/1998	33	-
1998/1999	47	-
1999/2000	61	-
2000/2001	70	-
2001/2002	54	-
2002/2003	55	30
2003/2004	32	36
2004/2005	32	47
2005/2006	53	59
2006/2007	54	45
2007/2008	43	41
2008/2009	31	37
2009/2010	42	42
2010/2011	52	43
2011/2012	68	29
2012/2013	51	28
2013/2014	39	52
2014/2015	54	57

2015/2016	57	42
2016/2017	40	41
2017/2018	60	33
2018/2019	60	40

Vision

Be recognized as an outstanding innovative leader in pharmacy education and research, contributing responsibly to the continuous improvement of pharmaceutical services and patient-centered care within our community.

Mission

The Mission of the Faculty of Pharmacy at Kuwait University is to:

- Educate our students and pharmacists to the highest standards of pharmaceutical sciences and pharmacy practice to meet the evolving needs of the population
- Engage in relevant, interdisciplinary and high-quality research to contribute to the development and better understanding of medicines and their therapeutic application
- Share the expertise and experience of its members with the community to promote health and the responsible and safe use of medicines
- Develop its intellectual capital to be a reputable and efficient component of Kuwait University

Values

- **Individual COMMITMENT:** The journey towards our vision depends upon each and every individual contributing to our global efforts by focusing on their specific tasks and being open to change to improve their effectiveness in delivering the expected outcomes.
- **Intrinsic INTEGRITY:** In order for our Faculty to succeed in its evolution, we must maintain the highest level of professional integrity in all aspects of our mission. This will foster mutual trust between ourselves and with both the higher university administration and our key external partners.
- **Intentional CREATIVITY:** Our vision requires that we continually strive for focused and innovative outcomes that represent significant evolution from best practices.
- **Internal SOLIDARITY:** To face current and future challenges during its evolution, our Faculty needs to be a strong and unified organization, with complete cooperation between academic and administrative

departments communicating and working together to fulfill our mission. Our collective goals (of vision and mission) should prevail above our individual interests.

- **Social ACCOUNTABILITY:** As a public organization, this Faculty is responsible for delivering the highest level of education, and for the creation of new knowledge to contribute to the advancement of our society. We are also ultimately responsible to actively contribute, by engaging with all relevant stakeholders, to the quality of healthcare offered to our population.

Faculty of Pharmacy Administration

- **Dean:**
Prof. Pierre Moreau
- **Acting Vice-Dean for Academic and Student Affairs:**
Dr. Dalal Al-Taweel
- **Vice-Dean for Postgraduate Studies & Research:**
Prof. Mohammed Abdul-Hamid
- **Administrative Manager:**
Ms. Nouriah Al-Adwani

Academic Departments

1. **Department of Pharmacology & Therapeutics**
Chairman: Dr. Maitham Khajah
2. **Department of Pharmaceutical Chemistry**
Chairman: Dr. Khaled Orabi
3. **Department of Pharmaceutics**
Chairman: Prof. Aly Nada
4. **Department of Pharmacy Practice**
Acting Chairman: Dr. Fatma Jeragh

ACADEMIC DEPARTMENTS

1. Department of Pharmacology and Therapeutics

Mission

The department strives to be a center of excellence in:

Teaching:

- by providing quality education in pharmacology and therapeutics for pharmacy students
- through use of best designed courses and state-of-the-art learning methodologies

Research and Consultancy:

- to lead in conducting excellent, high quality and novel research
- to serve as a center of research consultancy for Kuwait and other Gulf States
- by establishing a Center for Therapeutic Drug Monitoring (TDM)

Community and University Services:

- through provision of pharmacotherapy consultation to healthcare professionals
- through organizing seminars, lectures and workshops for pharmacists to update them on current trends in management of diseases as part of continuing education program
- through organizing international conferences on advances in therapeutics.

Academic Staff

Chairman:

- Dr. Maitham Khajah

Professors:

- Prof. Pierre Moreau [Dean]
- Prof. Samuel Kombian
- Prof. Ahmed El-Hashim
- Prof. Murat Oz

Associate Professors:

- Dr. Kamal Matar
- Dr. Willias Masocha

- Dr. Maitham Khajah

Assistant Professors:

- Dr. Mohamad Qaddoumi
- Dr. Altaf Al-Romaiyan
- Dr. Bedour Abdul Karim Qabazard
- Dr. Jacinthe Lemay
- Dr. Omama Al-Farisi

Clinical Instructors:

- Ph. Al-Shaimaa Al-Kandery

Teaching Assistants:

- Ph. Maram Jamal Katoue
- Ph. Aisha AlBaloushi

Scholarship Students:

- Lulwah Al-Shammari

Non-Academic Staff**Chief Technician:**

- Dr. Randa AbdulSalam

Technicians:

- Ph. Seena Elizabeth Mathew
- Maha Al-Kharji

Senior Research Assistants:

- Amal Thomas
- Sowmya Balakrishnan
- Sanaa Hawaii
- Krishna Girija
- Sara Ibrahim

Secretary:

- Ms. Shila Anas

2. Department of Pharmaceutical Chemistry

Mission

The Department focuses on achieving excellence in the following areas:

Teaching:

The Department aims to educate pharmacy students in Pharmaceutical Chemistry and related sciences and to train them to be proficient in applying these knowledges in:

- understanding the chemistry of drugs and drug-drug interactions
- drug analysis and drug quality control
- understanding the molecular basis of cellular function and therapy
- pursuing postgraduate studies in various areas of pharmaceutical chemistry

Research:

The Department aims to conduct research in pharmaceutical and medical sciences and biopharmaceutical analysis:

- discovery and development of new medicinal compounds from natural and synthetic sources
- development of analytical techniques for drugs and molecules in biological systems
- identification and development of novel biological markers for assessment of neoplasia

Community Services:

The Department aims to offer facilities useful in instrumental analysis to:

- provide services of drugs of abuse screening and analysis for the General Administration of Criminal Evidences, Ministry of Interior
- provide services of drug analysis for quality control laboratories in Drug Registration Department, Ministry of Health, Kuwaiti and Saudi Pharmaceutical Industries Company
- perform screening service for metabolic diseases in neonates and infants
- provide analytical services for researchers
- provide training and continuing education programs to pharmacists on various pharmaceutical topics

Academic Staff

Chairman:

- Dr. Khaled Orabi

Professors:

- Prof. Mohammad Abdel-Hamid
- Prof. Yunus Luqmani
- Prof. Ladislav Novotny
- Prof. Oludotun Phillips

Associate Professors:

- Dr. Khaled Orabi

Assistant Professors:

- Dr. Nada Al-Hassawi
- Dr. Naser Al-Tannak
- Dr. Fatma Al-Awadhi
- Dr. Samaa Al-Rushaid

Clinical Lecturers:

- Ph. Leyla Sharaf
- Ph. Hanan Abdul Latif

Teaching Assistants:

- Ph. Zainab Taqi
- Ph. Dalal Al-Adwani

Scientific Assistant:

- Sana'a Amine

Scholarship Students:

- Bashayer Al-Dhafairi
- Fatma Taha

Graduate Students:

Masters Level:

- Wael Shady
- Abrar Al-Mutairi
- Mariam Al-Shamali

- Nora Al-Barrak
- Ayah Ahmed

PhD Level:

- Nemah Al-Abkal
- Nasser Barakat
- Rania El-Anwar

Non-Academic Staff

Chief Technician:

- Sulaiman Al-Sulaiman

Technicians:

- Athraa Khan
- Emad ElSayed
- Mary Varghese
- Islam Essa
- Akram Aghabuios
- Aldana Albuhairi

Secretary:

- Asmaa Badawy

3. Department of Pharmaceutics

Mission

The department endeavors to be consistent with the Faculty's goals to achieve excellence in teaching, research and services to the community.

Teaching:

- promoting teaching methodologies to cope with international standards so as to produce competent pharmacists for Kuwait and the Gulf region
- following a path of life-long learning
- participating in the establishment of robust graduate and post graduate programs in the field of pharmaceutics

Research:

- developing technologies to produce cost-effective healthcare products
- transforming the department into a "Center for Excellence in Pharmaceutical Technology"
- making Kuwait a "self-reliant" state in the production of drugs and drug products
- promoting interdisciplinary research with national and international organizations

Community Healthcare and University Services:

- providing consultancy to community healthcare
- participating in training and continuing pharmacy education programs
- motivating young and genius Kuwaiti pharmacists to be part of the mission of the Faculty in the fields of pharmaceutics

Academic Staff

Chairman:

- Prof. Aly Nada

Professors:

- Prof. Aly Nada

Associate Professors:

- Dr. Mohsen Hedaya
- Dr. Abdel-Azim Zaghloul

Assistant Professors:

- Dr. Muneera Al-Soraj
- Dr. Yacoub Al-Basarah
- Dr. Wabel Al-Busairi
- Dr. Noha Nafee
- Dr. Abdelkader Metwally

Teaching Assistants:

- Dr. Farzana Bandarkar
- Ph. Ghadeer Al-Mousawi
- Ph. Reham Al-Kazemi

Scientific Assistants:

- Ph. Elizabeth Abraham

Scholarship Students:

- Maitham Bahman
- Ameena AlMurjan
- Abdulaziz Alobaid
- Hawra'a Ali

Non-Academic Staff**Chief Technician:**

- Sulaiman Al-Sulaiman

Technicians:

- Ph. Duha Nabil
- Ph. Saji Abraham
- Farah Jumaa
- Yehya Abdulqader

Secretary:

- Marwa Gouda

4. Department of Pharmacy Practice

Mission

The department of Pharmacy Practice provides high quality education, research and community service aiming at a safe, effective and economical use of medicines to improve patients' outcomes.

Teaching:

- The Department of Pharmacy Practice engages in teaching disciplines of clinical, social and administrative pharmacy. Our teaching philosophy is based on the concept of pharmaceutical care i.e. "the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life". This involves the student being able to identify, resolve and prevent medicine related problems and achieving other competencies required in professional practice.

Research:

- The research carried out by departmental staff are in the areas of community pharmacy, hospital pharmacy, pharmaceutical care, pharmacoepidemiology, public health, social pharmacy, pharmacoconomics, medicine information, pharmacy education, pharmacokinetics and therapeutic drug monitoring.

Community Services:

- Our community services aim at contributing in evaluating and improving pharmaceutical services and systems to enhance the quality of health care outcomes. Structured continued professional development to complement the educational needs of pharmacists in Kuwait will be provided.

Academic Staff

Acting Chairman:

- Dr. Fatma Jeragh

Professors:

- Prof. Abdelmoneim Awad

Associate Professors:

- Dr. Mohammad Waheedi

Assistant Professors:

- Dr. Abdullah Al-Bassam
- Dr. Dalal Al-Taweel
- Dr. Fatma Jeragh
- Dr. Salah Waheedi
- Dr. Fatemah Al-Saleh
- Dr. Maryam Al-Owayesh
- Dr. Sarah Al-Ghanem
- Dr. Mona Murad
- Dr. Mai Al-Hazami
- Dr. Sara Al-Manea

Clinical Lecturers:

- Dr. Tania Bayoud

Clinical Instructors:

- Dr. Zahra Al-Sairafi
- Ph. Reny Mary Mathew
- Ph. Asmaa Al-Haqan
- Ph. Heba Abul
- Ph. Noor Marafie
- Ph. Sara Alajmi
- Ph. Sameer Taher

Teaching Assistants:

- Ph. Samuel Koshy
- Ph. Youmna Alaa-Eddine

Scholarship Students:

- Huda Al-Enezi
- Dana Al-Sanea
- Afrah Al-Kazimi
- Emad Al-Sarraf
- Ahmed Taqi
- Ethar Makhseed
- Maha Al-Harbi
- Fatma Rashed
- Mariam Al-Obaidli
- Farah Alhunaidi

- Asmaa Albuloushi

Non-Academic Staff

Chief Technician:

- Dr. Randa AbdulSalam

Technicians:

- Ph. Shaimaa Abdel-Meguid
- Ph. Reny Varghese
- AbdulRazzak Al-Shaar
- Amal Mostafa

Secretary/Administrative Specialist:

- Zahra Al-Saleh

Administrative Coordinators:

- Mona Naqi
- Esraa Mohammed

Supporting Faculty of Medicine Departments

- Department of Anatomy
- Department of Biochemistry
- Department of Community Medicine
- Department of Medicine
- Department of Microbiology
- Department of Pathology
- Department of Pharmacology & Toxicology
- Department of Physiology
- Department of Surgery
- English Language Unit

Supporting Faculty of Allied Health Sciences Departments

- Department of Medical Lab Sciences
- Department of Physical Therapy
- Department of Radiologic Sciences

ACADEMIC PROGRAMS

I- The Bachelor of Pharmacy Program (BPharm Program)

1. Admission

Students are admitted into the Bachelor of Pharmacy (BPharm) program once a year during the Fall Semester.

Requirements

- a. High school students who hold secondary school certificate (Science major), or its equivalent, with a minimum percentage of 80% in the high school marks.
- b. Priority of admission will be given to applicants who have the highest equivalent Grade Point Average of the secondary school percentage and the results of aptitude tests as follows:
 - High School grades 65%
 - Result of English language aptitude test 15%
 - Result of Mathematics aptitude test 10%
 - Result of Chemistry aptitude test 10%

Number of Students

The maximum number of students, including non-Kuwaitis, admitted to the Faculty of Pharmacy will be as follows:

Total students: 63 (60 Kuwaitis and 3 non-Kuwaitis).

(This number includes both government and all private school systems).

Degree

Faculty of Pharmacy offers a Bachelor of Pharmacy degree (BPharm).

Structure of the program

The BPharm program is a professional program consists of one pre-professional year followed by four professional years. The first pre-professional year is devoted to the study of English language, basic sciences, and elective courses. Whereas, during the remaining four years of the BPharm program students study pharmaceutical and clinical sciences including clinical placements in governmental hospitals and polyclinics. Students are required to complete 154 credit hours (C.H.) for graduation. The curriculum for the 5-year BPharm Degree program is shown in the major sheet below.

Degree Requirements

To graduate, a student must complete all academic requirements of all courses

listed in the Major Sheet.

1. The total number of credit hours required for graduation is 154.
2. General GPA of 2.00 points on 4.00 scale.
3. Major GPA of 2.00 points on 4.00 scale.

Student's Evaluation

The student must successfully pass the compulsory and elective courses listed in the curriculum.

Time Limit for Completing Studies

A maximum period of 14 semesters is allowed to complete the program.

2. The first year of the BPharm Program

- Students are directly admitted to the first year of the FoP if they fulfill the admission requirements for the FoP.
- All students admitted to the Faculty of Pharmacy must register in the prescribed courses totaling 30 credit hours during the first and second semesters of the first year.
- Students enrolled in the first year of the FoP cover the same subjects covered by the students in the FoM and FoD during their first year.
- For promotion to the second year of the pharmacy program, the students must pass all the subjects of the first year, during the first and second semesters after joining the University and must achieve the required minimum GPA of 2.00 points out of 4.00 points.
- Students who fail to obtain GPA of 2.0 will not be promoted to 2nd year.
- The first-year curriculum was developed to prepare students academically to progress into any of the HSC programs.
- Students in the first year of the FoP take classes offered by departments outside the FoP, however, they administratively belong to the FoP.

3. Transfer to the Faculty of Pharmacy

Transfer to the FoP is limited to students who are already enrolled in Kuwait University if they fulfill the transfer requirements. The FoP accept transfer students fulfilling the requirements if there are empty seats. Transfer between faculties within Kuwait University is allowed only once.

a. Transfer of students of Faculties of Medicine and Dentistry immediately after their first year:

- Students from Faculties of Medicine and Dentistry who have passed

the first year in the Faculty of Medicine of the Faculty of Dentistry are eligible to apply for transfer to the Faculty of Pharmacy, at the end of the first year, provided that the number of pharmacy students promoted to 2nd year is less than 63. If 63 pharmacy students are promoted to 2nd year, then there will not be any transfer allowed for these students.

- The student must have passed all the prescribed first year courses offered by the Faculties of Medicine and Dentistry.
- The student must have a current minimum GPA of 2.00/4.00.
- If seats are available, the Dean of Admission and Registration will make the announcements for transfer, specifying the number of vacancies available, immediately after promotion of first year pharmacy students to the second year.
- Required documents should be submitted to the Dean of Admission and Registration during the period specified by them (Usually during July/August every year).
- Students shall be accepted for transfer based on their current GPA. Priority will be given to those who have the highest GPA.
- Students will be accepted to the third semester (second year) of the pharmacy program.

b. Transfer of students from Faculties of Medicine and Dentistry in the second year or higher:

1. Students of Faculties of Medicine and Dentistry who are in the second year or higher, whether they passed or failed their courses (not eligible to continue their programs), are eligible to apply for transfer to Faculty of Pharmacy, provided the number of pharmacy students promoted to 2nd year is less than 63. If 63 pharmacy students are promoted to 2nd year, then there will not be any transfer allowed for these students.
2. If seats are available, the Dean of Admission and Registration will make the announcements for transfer, specifying the number of vacancies available, immediately after promotion of first year pharmacy students to the second year.
3. Required documents should be submitted to the Dean of Admission and Registration no later than the second week of the Fall semester.
4. Students shall be accepted for transfer based on their current GPA. Priority will be given to those who have the highest GPA.
5. Students will be accepted to the third semester (second year) of the pharmacy program.

c. Transfer regulation applicable to students in other Kuwait University Faculties other than Medicine and Dentistry:

1. Applications for transfer shall be accepted from students who are currently registered in Kuwait University.
2. The minimum current Grade Point Average (GPA) is 2.00 out of 4.00.
3. Students must have passed 38 credit hours in the following science courses with average GPA of 3.0:
 - a. Chemistry courses (110 & 111) + 114.
 - b. Physics courses (121 & 125) + (122 & 127).
 - c. Biology courses (101 or 103).
 - d. Mathematics or Statistics (except Finite Mathematics 115).
In addition to:
 - e. 10 credit hours in English courses or (6 credit hours in English courses + minimum of 4 credit hours of science courses taught in English such as Biology or Chemistry (except Mathematics, Statistics and Computer).
 - f. 6 credit hours of university elective courses.
4. Required documents should be submitted to the Dean of Admission and Registration during the month of August.
5. Student must pass the English proficiency examination for transfer students with score equal or more than 60%. This exam is administered by the Health Science Center English Department during the month of September.
6. Students shall be accepted in the third semester (second year) of the pharmacy program.

Notes on priority

- Transfer Applications will be accepted by the Dean of Admissions and Registration only if seats are available at the end of the first year, and until the 63 seats are filled.
- Kuwaiti students will receive the highest priority.
- Students who finished their first year in Medicine or Dentistry and wish to transfer to pharmacy during the summer (section a), will have the priority over other transfer students.
- From the pool of students from section II and section III, transfer priority will be based on the GPA (first year GPA for section II and global GPA for section III)

d. Transfer from the FoP:

1. Pharmacy students who have GPA 3.0 or above can transfer to the FoM or FoD if there are seats available in these Faculties.
2. Students, who do not successfully finish all the courses of the first year in the FoP, can transfer to other Kuwait University Faculties outside the HSC.

4. Registration Guidelines

a. General University Regulations:

Dates of registration shall be published by the university, posted on KU website, and students are notified by text message before each semester, and the registration procedures must be strictly adhered to in accordance with the following conditions

- Registration will be on a semester basis and done through the internet and according to established University procedures
- Any student who fails to register in any course of any semester will bear the consequence of lack of registration
- Any applicant wishing to transfer to the pharmacy program must fulfill all the transfer requirements

Semester

A semester is the period of study that extends between the beginning and end of the study including the final examination period. A semester extends for 18-20 weeks. Two semesters make one academic year.

Summer Semester

Is an elective semester and extends for eight (8) weeks including the final examinations period. Each summer course lecture lasts for 55 minutes. Summer studies are supervised by the Dean of Admission, Registration or his replacement, at the University level, the Faculty Dean or his replacement, at the Faculty level and the Department Chair or his replacement, at the Department level.

Academic Advisor

Each registered student will be assigned to a faculty member in the Faculty of Pharmacy to serve the academic advisor. The role of the academic advisor includes the following:

- Guiding the students in selecting the courses to be registered on the basis of the curriculum major sheet and the required pre-requisites

- Solving problems (if any) that might affect the academic performance of the students
- Ensuring that the students are fully aware about all of the necessary rules and regulations stated in this handbook

Study Load

It is the load which a student must take each semester and which he/she must carry over several semesters to earn a degree. The credit hour (CH) is basically a criterion for specifying the study load. The academic department that offers a particular course specifies the number of CH that comprises the course. The CH rating of a course is normally based on one hour of theoretical study, e.g. a lecture, or at least two hours of applied study, e.g. a laboratory session per week, per semester being equal to one CH.

The normal study load in a regular semester is 15-19 CHs. With the approval of their advisors, Dean, or Vice-Deans, students may register for more CHs to meet the graduation requirements or for other situations, if they fulfill the requirements.

b. Specific Faculty of Pharmacy registration rules:

- The current registration rules (applied for students enrolled in FoP 2011/12 and after) do not allow the students to register in any course in a given semester, unless the student successfully completed all the courses in the previous semester.
- The old rules (applied for students enrolled in FoP before 2011/12) allow students to register for courses if they successfully complete all pre-requisite courses in the previous semester. Prerequisites are determined by the departments, the Faculty curriculum committee, and the Faculty Council and are approved by the office of Vice-President for Academic Affairs and the Scientific Committee. These must be strictly followed as they stand without any exceptions.
- The Faculty has the right to de-register any student with approval of the Dean and Faculty curriculum committee, should it deem necessary.
- It is the responsibility of the students, not the Faculty administration, to register online within the period allowed and add or withdraw from courses during the period published by the office of the Dean of Admission and Registration and placed on the appropriate University website. After the end of the registration period, the faculty administration will not be able to assist the students to register and students will not be allowed

to attend any unregistered course. It is the student responsibility to check that their registration is valid and to check for any human error in degrees reported and displaced online.

- The Faculty does not support the withdrawal or de-registration of students from any existing courses. There must be a valid reason for the Vice-Deans to accept such request by any student, and this is done through the Dean of the Faculty.

5. Course Assessments

- Each course shall include two major assessments, one as the mid-term and the other is the final. These two should make up NOT less than 70% of the total marks. The other 30% could be attained from quizzes, lab reports, presentations and projects etc. Where there are specific requirements of some courses that depend on presentations, the mid-term exam may not be required for a particular course, and as deemed necessary by a department council. Here the final exam mark should not exceed 60% of the semester yield.
- Exam reviews and tutorials are left to be conducted at the discretion of course coordinators and examiners of any course ensuring these are NOT photocopied, handed or recorded by the students. HSC and Kuwait University Regulations consider the audio or video recording of lectures, tutorials or exam reviews unlawful. The Faculty of Pharmacy is not responsible for any misinformation, omissions or misrepresentation of any lecture material transcribed by the students from these recordings.
- Scores for the Mid-term exams, quizzes and other assessments may be posted without Faculty Council approval. The overall student's grades at the end of the semester should be published only after being ratified by the Faculty's Board of Examiners and approval by the Faculty Council.
- No re-sit shall be offered for mid-term or final exams without a valid acceptable excuse.
- Examination questions can be MCQ, short answer questions, and/or essay questions. The respective Department conducting the exams decides the type and combination of exam questions. Examination questions are vetted beforehand by a committee consists of faculty members from the department to ensure clarity, correctness, coverage, and appropriateness of the questions for the examination time.
- MCQ Exam questions can be either one correct answer (of 5 distracters) or multiple correct answers scored according to a standard key familiar to the students. All answers should be logged on a computer sheet and

be analyzed for difficulty indexes and the distribution of correct answers as compared to wrong answers.

- Students with “F” marks in normal sitting exams may be allowed to see their answer score sheets. Students attaining other marks may be allowed to do the same at the discretion of the course coordinator.

6. Advancement in the Program, and Grade Reporting

- The minimum passing mark in any professional Pharmacy course run by the Faculty is 60%.
- For students who were admitted to the FoP during the academic year 2017-2018 or latter, the exam marks are converted to letter grades according to the following scale and in accordance with the new HSC regulations:

F < 50% (No Re-sit)

R = 50-59% (Re-sit)

C = 60-64 %

C+ = 65-69 %

B - = 70-74 %

B = 75-79 %

B+ = 80-84%

A- = 85-89%

A = > 90%

*A distinction may be awarded to students getting A, (= > 90%), after approval by the board of examiners and the Faculty Council.

- For students who were admitted to the FoP during or before the academic year 2016-2017, the exam marks are converted to letter grades according to the following scale:

F < 50% (No Re-sit)

R = 50-59% (Re-sit)

C = 60-69%

C+ = 70-79%

B = 80-86%

B+ = 87-89%

A- = 90-94%

A = > 95%

*A distinction may be awarded to a student getting A, (=> 95%), after approval by the board of examiners and the Faculty Council.

- Transfer students will follow the grade scale applied on their classmates who were admitted directly to the FoP.
- Any student with three or more “F”, “R” or “FA” grades, in any combination in final exam results, will be awarded an “F” for these courses, regardless of their number. This must be ratified and approved by the Board of Examiners and the Faculty Council.
- Any student with a grade of “F” in any course will not be allowed to take the Re-sit examination in this course and will have to repeat this course in the following year.
- Any student with a grade of “R” in one course and “F” in another course will be allowed to take the Re-sit examination in the course with the “R” grade but not for the course with the “F” grade. He/she will have to repeat the course with “F” grade in the following year.
- When all final results are completed, the results shall be sent to the Office of Registration and Admission in Shuwaikh Campus. Students can be given a grade of “R” (Re-sit), until a re-sit of the exam has been conducted. The results of the re-sit examination shall be forwarded to Registration and Admission Office at Kuwait University immediately after posting the results. This ensures that no student can register in subsequent courses, whose pre-requisite courses are not fulfilled.
- A student who feels that a human error in the reporting of his/her marks had been made by the Faculty, in their forwarding of marks to the Office of Registration and Admission, must bring this to the attention of the Office of the Vice-Dean Academic and Students Affairs in the Faculty or the Chairman of the Department, whose exam results are concerned, no later than two months after the start of the following semester. This should be done in writing and any delay in reporting the error may result in a wrongly-reported grade being sustained by Kuwait University Committee involved in the correction of such grade.
- Student who did not take the final examination due to an acceptable excuse, will be allowed to take the re-sit examination and their results will be recorded as such. Those attempting the re-sit exam for the

second trial will be awarded a grade of “C” when passing these exams, regardless of their score. There is no re-sit for the re-sit examination, i.e. students who do not pass the re-sit examination whether as a first trial or second trial will have to repeat the course.

- Any other matter or incident arising in any other circumstances, not covered by the above regulations will be judged in the light of the General Guidelines in Kuwait University Students Regulation, as a reference. This requires the approval and action of the Faculty of Pharmacy Curriculum Committee and the approval later by the appropriate Committee in Kuwait University Central administration.

7. Grade Point Average (GPA)

The grade point average used currently at the HSC, Kuwait University to grade students is based on a 4-point scale. The following table shows the sets of GPA scale used in the Faculty of Pharmacy:

Grade Point Scale	Mark (Percentage) Enrolled in FoP before 2017/18	Mark (Percentage) Enrolled in FoP in 2017/18	Grade Description	Grade Category
4.00	=> 95	=> 90	“Excellent”	A
3.67	90-94	85-89	“Excellent”	A-
3.33	87-89	80-84	“Very good”	B+
3.00	80-86	75-79	“Very good”	B
2.67	-	70-74	“Good”	B-
2.33	70-79	65-69	“Good”	C+
2.00	60-69	60-64	“Good”	C
0	50-59	50-59	Incomplete**	R*
0	< 50	< 50	“Fail”	F***
0	Absent	Absent	“Fail, Absent”	FA****

* Students who score between 50-59 will get a grade of (I) and will be allowed to take a re-sit examination. If they pass the re-sit examination they will get a grade of C regardless of their scores, and if they did not pass they will get a grade of “F”.

** The incomplete grade (I) will have to be changed (to F or C or other) before the end of the first week of the following semester of obtaining this grade.

*** Students who score less than 50, will get a grade of “F” and will not be allowed to take the re-sit examination.

**** Students who did not attend the final examination without an acceptable excuse will get a grade of “FA”, while those who did not attend the final examination due to an acceptable excuse, will get a grade of “I” and will be allowed to take the re-sit examination and will get the grade corresponding to their score in the re-sit examination.

The GPA for students is calculated as follows:

- The number of credit hours (CH) for a course is multiplied by the grade point (GP) equivalent to the grade obtained by the student. This procedure is repeated separately for each course the student has taken (e.g. column B x column C).
- The products of column B (CH) x column C (GP) for each course is added together to obtain the total grade points the student obtained (column D).
- The total grade points the student obtained in a semester is divided by the number of credit hours completed in the semester to calculate the grade point average (GPA) for that semester.
- The total cumulative grade points the student obtained is calculated from the sum of the product of the CH x GP for all the courses the student obtained. The total grade points are divided by the total number of credit hours completed by the student to calculate the cumulative grade point average (GPA) the student obtained throughout the program.

Example of “GPA” calculation, where the GPA is 2.77 is shown below:

A	B	C	D	E	F
Course Name	C.H.	Grade Point	B x C	C.H. completed	Grade Point Average (GPA)
Chemistry	3	B+ (3.33)	9.99	3	
Biophysics	3	C (2.00)	6.00	3	
English	5	B (3.00)	15.00	5	
Computers in Medicine	1	C+ (2.33)	2.33	1	
Elective	3	F = 0	0.00	0	
	15		33.32	12	2.77

8. University Warnings

- The student shall be put on the warning list (probation list) if he/she earned the following GPA's at the end of a semester:
 - 1.67, who has registered in less than 45 credit hours
 - 1.87, who has registered between 45-60 credit hours
 - 2.00, who has registered in more than 60 credit hours
- A student must increase his/her General GPA to the required GPA in the two semesters following his/her entry on the warning list, otherwise he/she shall receive a second warning and a third warning, respectively.
- If the grades obtained at the end of summer semester do not increase the GPA of the student to the required level to avoid an official warning, the number of warnings will not increase.
- Major GPA is counted when the registered credits reach 60 credit hours. However, the number of warnings of the major GPA is not added to the General GPA.
- Students who receive a third warning are automatically dismissed from the university. However, the student may be permitted to register in an exceptional semester to increase his/her General GPA if he/she attains the following Semester grade average:
 - B+ for those who already completed > 100 credit hours
 - B for those who already completed 60-100 credit hours
 - B- for those who already completed < 60 credit hours

If the student did not increase his/her General GPA to the required average after the exceptional chance for study, he/she will receive a fourth warning and be automatically dismissed from the University. However, The Student Affairs Committee may accept appeals from students to be given a last chance to continue their studies according to the following two conditions:

- The remaining period for graduation is only one semester
- Both the General and the Major GPAs are Not less than 1.9

9. Withdrawal

- If approved by the academic advisor, a student may withdraw from one or more courses during the first six weeks of each of the Fall and Spring semester. A withdrawal note (or letter "W") will be denoted in the student record after the first week, if the student withdrew from any class and those withdrawn classes will not enter into the student GPA assessment. This withdrawal should not subsequently reduce the registered credit hours below the minimum required one.

- In exceptional cases, a student may withdraw from study for a whole semester, subject to the approval of Student Affairs Committee. In such cases, a withdrawal note (or letter “W”) will be denoted in the student record for all the withdrawn courses of the relevant semester. The Student Affairs Committee may not count this withdrawn semester within the normal period of graduation.

10. Adding and Dropping Courses

Following the end of the registration period, a one-week period (before the start of the semester) may be granted for adding and dropping courses. In such cases, a withdrawal note (W) will not show in the student record.

11. Interruption of Study

- Interruption of study means that the student did not register for courses for one semester or more.
- If a freshman or a transferred student interrupted (or withdrew) his/her study in the first admitted semester, his/her enrollment or transfer into the University is deemed cancelled. However, a student may delay his/her admission into the following semester for health or social reasons pending the approval of the Student Affairs Committee.
- Freshmen or transferred students may interrupt their study during the period of compulsory military service if they could not delay it.
- Students who obtain either an “F” (due to failure in exam) or “FA” (due to absence from exam) in every registered course in the first enrolled or transferred semester and do not continue their studies in the following semester will be dismissed from the University.
- Subject to the approval of the Dean, students may take a voluntary leave of absence from their study for no more than two semesters during the 5-year program. This leave of absence would be added to their required graduation period. The Dean of the Faculty should inform the Dean of Registration and Admission about his decision.
- Subject to the approval of the Student Affairs Committee of the University, students may take an obligatory leave of absence from their study (due to unforeseen circumstances) for up to six semesters during their enrollment at the University. This obligatory leave of absence from their study will not be added to their required graduation period.

12. Graduation Regulations

The approved program of study will be that prescribed by the Faculty of

Pharmacy. To graduate, a student must fulfill all academic requirements of all courses listed in the Major Sheet. The total number of credit hours required for graduation is 154. Kuwait University will not award BPharm degree to student whose General or Major GPA is below 2.00.

Major Sheets

First Year

First Semester		
Course No.	Course Name	C.H.
14 88-181	English I	5
14 40-140	Chemistry for Health Sciences	3
14 00-141	Biophysics	3
14 10-101	Introduction to computers in Medicine	1
xxxx-xxx	Elective	3
Total C.H.		15
Second Semester		
Course No.	Course Name	C.H.
14 88-182	English II	5
14 20-143	Biology for Health Sciences	4
14 10-144	Biostatistics and Basic Epidemiology	3
xxxx-xxx	Elective	3
Total C.H.		15
Total C.H. for First Year		30

Second Year

First Semester		
Course No.	Course Name	C.H.
0560-155	Anatomy	3
0410-115	Finite Mathematics	3
1488-183	English III	5
1120-217	Organic Chemistry	4
Total C.H.		15
Second Semester		
Course No.	Course Name	C.H.
0530-152	Physiology	3
1120-218	Pharmaceutical Chemistry I	3
1110-204	Foundation of Pharmacy Practice	5
1130-224	Pharmaceutics I (Physical Pharmacy)	5
Total C.H.		16
Total C.H. for Second Year		31

Third Year

First Semester		
Course No.	Course Name	C.H.
1120-317	Pharmaceutical Chemistry II (Pharmaceutical Biochemistry)	3
1110-303	Community Pharmacy	2
1110-305	Community Pharmacy-Practical	1
1130-323	Pharmaceutics II	4
1140-333	Pharmacology I	3
1140-331	Pathophysiology I	3
Total C.H.		16
Second Semester		
Course No.	Course Name	C.H.
1120-318	Pharmaceutical Chemistry III	3
1110-304	Introduction to Pharmaceutical Care	2
1110-306	Introduction to Pharmaceutical Care- Practical	1
1130-324	Pharmaceutics III	3
1140-334	Pharmacology II	3
1140-332	Pathophysiology II	3
Total C.H.		15
Total C.H. for Third Year		31

Fourth Year

First Semester		
Course No.	Course Name	C.H
1120-415	Pharmaceutical Chemistry IV	3
1110-403	Pharmaceutical Care I	2
1110-405	Pharmaceutical Care I-Practical	2
1130-423	Pharmaceutics IV	3
1140-431	Pharmacology and Pharmacotherapeutics	3
1120-411	Biotechnology	2
Total C.H.		15
Second Semester		
Course No.	Course Name	C.H.
1110-404	Pharmaceutical Care II	2
1110-406	Pharmaceutical Care II-Practical	2
1130-424	Pharmaceutics V (Biopharmaceutics)	2
1140-432	Pharmacotherapeutics I	6
1130-434	Pharmacokinetics	4
Total C.H.		16
Total C.H. for Fourth Year		31

Fifth Year

First Semester		
Course No.	Course Name	C.H.
1110-507	Administrative and professional Pharmacy	2
1110-509	Hospital Professional Experience I	2
1140-531	Pharmacotherapeutics II	6
Any two electives for a total of 6 credit hours to be taken:		
1110-503	Pharmacy Elective (Drug Information Services)	3
1120-513	Pharmacy Elective (Quality Control of Pharmaceuticals)	3
1120-515	Pharmacy Elective (Nutraceuticals)	3
1120-517	Pharmacy Elective (Natural Products Chemistry)	3
1130-521	Pharmacy Elective (Cosmetics)	3
1130-525	Pharmacy Elective (Industrial Pharmacy)	3
1140-533	Pharmacy Elective (Advances in Pharmacology)	3
1140-535	Pharmacy Elective (Advanced Therapeutics)	3
Total C.H.		16
Second Semester		
Course No.	Course Name	C.H.
1110-542	Advanced Pharmaceutical Care	2
1110-544	Introductory Pharmacy Practice Experience in Hospital Settings	10
One research project (3 C.H.) to be taken from the following:		
1110-504	Research Project (Pharm. Practice)	3
1120-514	Research Project (Pharm. Chem.)	3
1130-524	Research Project (Pharmaceuticals)	3
1140-534	Research Project (Phrm. Therap.)	3
Total C.H.		15
Total C.H. for Fifth Year		31

Total Credits for Pharmacy Bachelor Degree

154

Course Descriptions

First Year, Semester 1

1440-140 Chemistry for Health Sciences (3 C.H.)

This course aims to provide students with an adequate background in basic chemical principles of health sciences and to provide an understanding of fundamental organic and inorganic components of the human body. With this knowledge, students will be able to advance into Biochemistry and Molecular Biology, Clinical Chemistry and Pharmaceutical Chemistry as a health science profession.

1400-141 Biophysics (3 C.H.)

This course introduces important technologies and basic principles relevant to physics for health sciences students. Reading in a text book for this course, the popular scientific literature, and medical texts will treat both scientific basis and societal implications of sound, Doppler, hearing, and ultrasound, optics, fiber optics and vision, modern physics, X-ray, computed tomography (CT), Nuclear Physics, magnetic resonance, laser, nuclear medicine and Radiotherapy.

1410-101 Introduction to Computers in Medicine (1 C.H.)

The primary objective of this introductory course is to familiarize the student with fundamentals of computers and computer tools (e.g., internet, e-mail, word processing etc.) for use in healthcare settings and achieve a basic skill in each of these. A related objective is to introduce the student to the major medical and health data bases for retrieving information on medical and related research. Topics include an introduction to computers, CPU, Storage, multimedia, internet use, word processing, searching medical database.

1488-181 English Language I (5 C.H.)

This course introduces scientific and medical vocabulary and word roots, and revises basic grammar in a scientific context. On the completion of the course students should be able to understand short lectures, read and take notes from simple text on medical and biological topics, participate in class discussions and write short paragraphs of extended definitions involving scientific notions of shape, structure, measurements and physical properties.

University Elective (3 C.H.)

A Course selected from the list of approved electives by the student.

First Year, Semester 2

1420-143 Biology for Health Sciences (4 C.H.)

This is an introductory course for students of the HSC that covers some of the basic aspects of cell biology and its relevance to human health. With the knowledge gained through this course, HSC students should be able to advance into further understanding of basic biomedical sciences such as Biochemistry, Molecular Biology, Microbiology, Physiology and Anatomy.

1410-144 Biostatistics and Basic Epidemiology (3 C.H.)

The objective of this course is to introduce students to the principles of biostatistics and their applications in health sciences. Moreover, students will be familiarized with the concepts and measures of health, disease and disability as well as the design of epidemiological studies. Topics of this course include summarization and presentation of data, probability, sampling distribution, normal distribution, test of hypothesis, association between variables, measures of health and disease; descriptive epidemiology, introduction to study design; sources of error in epidemiology studies; epidemiology and prevention of communicable diseases; surveillance; environmental and occupational epidemiology; concepts in public health.

1488-182 English Language II (5 C.H.)

This course continues the study the scientific and medical English, with emphasis on developing reading and listening skills so that students can summarize and take notes from longer authentic texts. The organization of information in a text is studied and essay writing is introduced. Students are trained in techniques of oral presentation.

University Elective (3 C.H.)

A course selected from the list of approved electives by the student

Second Year, Semester 1

1120-217 Organic Chemistry (4 C.H.)

This course in organic chemistry is designed for students in health sciences and biology. Topics include classification and nomenclature of organic compounds, chemical bonds, structure and isomerism, and the preparation and properties of various organic compounds.

0560-155 Anatomy (3 C.H.)

This course is an introductory course to general human anatomy. The course

will concentrate on anatomical systems and unified concepts that contribute to a basic understanding of the structure and functioning of the human body.

0410-115 Finite Mathematics (3 C.H.)

This course discusses set theory, simple coordinate systems and graphs, linear programming, the simplex method, probability and statistics, and their application to medical sciences.

1188-183 English Language III (5 C.H.)

The aim of the course is to develop the writing skills necessary for students to express themselves precisely in English. The course reviews essay organization and extends the development of writing skills. The cognitive skills of sequencing, generalizing, synthesizing, predicting and making inferences and judgments are incorporated into the writing program. Also included are the broadly scientific theoretical functions of definition, classification, historical narration, persuasion and cause and effect. Reading, vocabulary development and advanced computer and library skills are an integral part of the course.

Second Year, Semester 2

0530-152 Physiology (3 C.H.)

This course provides a basic understanding of the physiology of the cell, body fluids, nerves, muscles, blood and functions of cardiovascular, respiratory, renal, gastrointestinal, endocrine and reproductive systems

1110-204 Foundations of Pharmacy Practice (5 C.H.)

The course is designed to lay the foundation for the subsequent development of Pharmacy Practice. This foundation course is divided into three main areas: pharmaceutical calculations, basic communication skills and an introduction to dispensing practice. During this introductory course, students will have exercises to help develop their communication skills, their ability to perform pharmaceutical calculations accurately and they will start to acquire the practical skills required for the dispensing of medicines to patients.

1120-218 Pharmaceutical Chemistry I (3 C.H.)

This course introduces pharmacy students to chemical properties of pharmaceutical compounds including acid/base balance, degradation and functional chemical groups. This course also will deal with the various aspects of chemical and instrumental methods of analysis including different spectrophotometric techniques and separation procedures including liquid

extraction, chromatography and electrophoresis.

1130-224 Pharmaceutics I [Physical Pharmacy] (5 C.H.)

This is a basic course in physical pharmacy covering states of matter and intermolecular forces, phase equilibrium and the phase rule, buffered solutions, Henderson-Hasselbalch equation, surface tension and surfactants, colloids, viscosity, rheology, thixotropy and viscoelasticity.

Third Year, Semester 1

1110-303 Community Pharmacy (2 C.H.)

This course will develop the communication skills attained during the 1110-204 course into the areas of questioning skills, assessment of symptoms and giving patient advice and counseling. This course mainly concerns Community Pharmacy and the role of the pharmacist in the community setting in responding to patients' symptoms. In this course, students will learn in detail about the different types of conditions, their etiology and their management in the community setting.

1110-305 Community Pharmacy-Practical (1 C.H.) (Lab)

This course involves the practical applications for the 303 course (theory), where students will apply their knowledge to resolve patients' complaints of various symptoms and ailments (through community pharmacy case studies), and recommend specific over the counter medications which are available in the community setting to resolve these symptoms. In this course, students will also learn about the technical and practical aspects of dispensing prescription medicines. Students will prepare and dispense pharmaceutical products and will learn how to label them appropriately, and provide the appropriate patient counseling, using various drug information sources.

1120-317 Pharmaceutical Chemistry II [Pharmaceutical Biochemistry] (3 C.H.)

This course is intended to give students an introduction to the basic classes of biological molecules, their structural and functional properties and the chemical processes that occur in living systems. Examples of relevance will be given throughout the course.

1130-323 Pharmaceutics II (4 C.H.)

This course will introduce the students to solution dosage forms and the basic sciences needed to understand them. Topics will cover solubility and distribution phenomena, solution kinetics, diffusion and dissolution, the need for dosage

form development, and different types of liquid dosage forms.

1140-331 Pathophysiology I (3 C.H.)

This course is designed especially for pharmacy students and intended to introduce them to the mechanisms of disease states based on knowledge of body structure and function that have introduced in previous courses of Anatomy and Physiology. The course deals with derangement of natural body functions and natural responses of the body to diseases. Specific diseases will be discussed to illustrate these principles. It is expected that the student, as a health science professional, will develop an interest in the nature of diseases and be prepared for the courses in therapeutics and pharmacy practice.

1140-333 Pharmacology I (3 C.H.)

This course introduces the students to Pharmacology, a science that defines drugs and describes their interaction with human body. The course aims at providing pharmacy students with a robust background on drug action, fate and uses; a knowledge that will also equip the student to study clinical applications of drugs or therapeutics. Therefore, this course (333) along with the subsequent course (334), are the cornerstone for therapeutic courses for the fourth and fifth year pharmacy students.

Third Year, Semester 2

1110-304 Introduction to Pharmaceutical Care (2 C.H.)

This course aims to introduce the student to clinical pharmacy practice, developing specific skills which will enable the student to immediately improve their practice of pharmacy. Students will begin to understand the pharmaceutical care process by learning to assume responsibility for patient outcomes, recognizing and identifying potential and actual drug-related problems and offering solutions that optimize therapeutic outcomes. The course will also focus on the pharmacist's role in public health and health promotion topics such as smoking cessation, overweight and obesity and women's health. It also covers topics such as drug information, patient counseling, patient interviewing, drug history and clinical laboratory tests.

1110-306 Introduction to Pharmaceutical Care Practical (1 C.H.)

This course involves the practical applications for the 304 course (theory), where students are formally introduced to the process of solving patients' drug-related problems through documentation, evaluation, monitoring and follow-up of patients. Students will acquire skills to develop pharmaceutical

care plan by learning the systematic approach for recognizing and identifying potential and actual drug-related problems and offering solutions that optimize therapeutic outcomes. Students will also develop skills to promote health, interview patients, take drug history, and provide drug information.

1120-318 Pharmaceutical Chemistry III (3 C.H.)

This course introduces students to the different classes of pharmaceutical compounds regarding the basic chemical structure, physicochemical properties, metabolic pathways and pharmacological effects in relation to chemical structure. Representative examples of compounds belonging to particular therapeutic classes will be discussed and the relationship between chemical structure and biological/therapeutic activity will be explained.

1130-324 Pharmaceutics III (3 C.H.)

This course introduces the students to the theoretical and practical aspects of five main topics: emulsions, semisolid preparations, percutaneous absorption, sterile products and pharmaceutical aerosols.

1140-332 Pathophysiology II (3 C.H.)

This course is intended to introduce pharmacy students to the mechanisms of diseased states based on the basic knowledge of body structure and function they have learned in previous courses. It deals with derangement of natural body functions and the natural response of the body to diseases. This covers specific common disease states, with a system approach. The pathology of the disease state and the clinical aspects, in addition to dealing briefly with treatment approaches, will be presented.

1140-334 Pharmacology II (3 C.H.)

This course is a continuation of course-333 for pharmacy students with a major emphasis on systematic actions of drugs and their therapeutic efficacy in diseases. This knowledge is essential for students to study clinical applications of drugs “therapeutics” during their studies in fourth and fifth years.

Fourth Year, Semester 1

1110-403 Pharmaceutical Care I (2 C.H.)

This course starts to focus on competencies required in professional practice. This course is designed to offer students patient care opportunities in a variety of practice settings, including community pharmacies, hospitals and ambulatory clinics. Students will use their clinical knowledge and skills to

identify, resolve or prevent drug therapy problems in order to improve the health-related quality of life for patients, provide consultations on drug-related issues, educate/counsel patients and family members on the use of medications and appliances. Emphasis is given on product selection, identification and resolution of actual and potential drug-related problems. Students will identify and solve patients' drug-related problems through documentation, evaluation, monitoring and follow-up of patients. This course will lead students through directed self-readings, lectures and assignments that enhance their understanding and skill levels in selected areas of practice. The course focuses on chronic disease management (gout, osteoarthritis, rheumatoid arthritis, osteoporosis, anemia and other blood diseases, psychiatric diseases, epilepsy, parkinsonism).

1110-405 Pharmaceutical Care I Practical (2 C.H.)

This practical course complements the theoretical course 1110-403. It will further develop the ability of the students to identify and handle drug related problems and develop pharmaceutical care plans. In addition, students will spend one day/week in either polyclinic pharmacies or community pharmacies. to gain experience of dealing with real patients and situations.

1120-411 Biotechnology (2 C.H.)

This course is designed to provide an introduction to the principles and practice of biotechnology starting from basic molecular biology to a discussion of special topics. The course is structured with 3 components: theoretical aspects of nucleic acid's biochemistry, techniques/methodology used in molecular biology and specific applications of biotechnology in medicine.

1120-415 Pharmaceutical Chemistry IV (3 C.H.)

The course entails the description and action of different functional groups in the major chemical classes that constitute or are being used as antiseptics and disinfectants, antibiotics, antimycotics, anthelmintics, immunosuppressants and antineoplastics.

1130-423 Pharmaceutics IV (3 C.H.)

This course will introduce the students to the theory and formulation of different types of solid dosage forms. Topics covered will include individual and bulk powders, granules, tablets, hard and soft gelatin capsules, and rectal and vaginal dosage forms.

1140-431 Pharmacology and Pharmacotherapeutics (3 C.H.)

This course focuses on pharmacology and pharmacotherapy of infectious diseases and cancer as well as the use of immunosuppressive agents. The course is structured such that the students are expected to first gain understanding the pharmacology of antibacterial, antifungal, antiviral, anticancer and immunosuppressive drugs. Once the pharmacology of chemotherapeutic and immunosuppressive drugs is covered the students are then expected to apply this knowledge in a series of lectures which cover specific infectious diseases, several types of cancers and solid-organ transplantation. Students are also expected to acquire knowledge about management of these disease states in addition to drug therapy decision-making. Following this course, students will develop an understanding of rational drug therapy of infectious diseases, cancer and transplantation.

Fourth Year, Semester 2

1110-404 Pharmaceutical Care II (2 C.H.)

This course is a continuation of 1110-403 course. The topics that are covered during this include chronic disease management (renal diseases; asthma and COPD; cardiovascular diseases including hypertension, dyslipidaemia, Ischaemic heart diseases, arrhythmias and heart failure; diabetes and thyroid diseases); patient Self-management (self-monitoring and follow-up: for respiratory and pulmonary conditions, hypertension and diabetes) and professional Services (provision of testing services for glucose and cholesterol/triglycerides).

1110-406 Pharmaceutical Care II-Practical (2 C.H.)

This course complements the theoretical course 1110-404. It will further develop the ability of students to identify and handle drug related problems and develop pharmaceutical care plans. In addition, students will spend time one day/week in either polyclinic pharmacies or community pharmacies. to gain experience of dealing with real patients and situations.

1130-424 Pharmaceutics V [Biopharmaceutics] (2 C.H.)

This course provides a basic understanding of the principles biopharmaceutics with a view for students to use this basic knowledge in understanding Pharmacokinetics. A major focus is the understanding of how dosage form factors influence a drug's bioavailability and pharmacological/toxicological action. Biopharmaceutics deals with the qualitative treatment of the drug's liberation, absorption, distribution, metabolism and excretion in human body.

1140-432 Pharmacotherapeutics I (6 C.H.)

This course is designed to provide students with principles about the pharmacotherapeutics of several disease states such as cardiovascular, respiratory, gastrointestinal, neurological, psychiatric and endocrine. In this course, students are expected to gain skills for recognition and identification of signs and symptoms of disease states. In addition, students are taught to integrate their pharmacology knowledge with skills of disease states management, based on updated treatment guidelines, and decision-making proficiencies in order to formulate and implement optimal pharmaceutical outcomes for patients.

1130-434 Pharmacokinetics (4 C.H.)

This course deals with the quantification of drug levels in the body during the complex system of liberation, absorption, distribution, metabolism and excretion studied in Biopharmaceutics course. This course will highlight the basic fundamentals of pharmacokinetics needed to understand the course of drugs in the body as well as to illustrate the impact of various factors on that course in a quantitative manner. Another material included linear and nonlinear kinetics, clinical applications of pharmacokinetics and the relationship between pharmacokinetics and pharmacodynamics.

Fifth Year, Semester 1

1110-507 Administrative and professional Pharmacy (2 C.H.)

In this course, students will explore aspects of the professional ethics and Kuwait Pharmacy Law, drug policies and their legal framework, management support systems, principles and application of pharmacoeconomics and the rational use of drugs.

1110-509 Hospital Professional Experience I (2 C.H.)

In this course students will spend two days/week in clinical placements at sites in either hospital pharmacies or in medical departments of hospitals. Students will be divided into two groups. One group of students will attend hospital pharmacy placements before mid-semester exams while the other group will attend medical rotation(s). After the mid-semester exams, the groups rotate from medical to pharmacy placement and vice versa. The major objective is to develop specific skills in the areas of clinical pharmacy, problem solving, medication history taking, medications dispensing, patient counselling and therapeutic planning, and an appreciation of the role of pharmacists in health care teams.

1140-531 Pharmacotherapeutics II (6 C.H.)

This course is essentially a continuation of the Pharmacotherapeutics I course where students will be taught pharmacotherapeutics of other disease states/disorder of systems such as bone/joint, ear/nose and throat, dermatological, blood disorders, infection diseases, oncological diseases and nutritional disorders. In this course, students are expected to gain skills for recognition and identification of signs and symptoms of these disease states. In addition, students are taught to integrate their pharmacology knowledge with skills of disease states management, based on updated treatment guidelines, and decision-making proficiencies in order to formulate and implement optimal pharmaceutical outcomes for patients.

Elective Courses (Two to be taken for a total of 6 C.H.)

1110-503 Pharmacy Practice [Drug Information Services] (3 C.H.)

Pharmacists are recognized as having expert knowledge about drugs. However, the provision of drug information services represents a very important specialty within the healthcare team. In order to operate such services efficiently, drug information pharmacists must be able to document, categorize and prioritize information requests, have the ability to access appropriate information sources and produce concise and accurate responses in realistic time frame. Experiential learning, with appropriate didactic and tutorial support, will be used to enable students to acquire the necessary skills.

1120-513 Pharmacy Elective [Quality Control of Pharmaceuticals] (3 C.H.)

This course will introduce pharmacy students to the general guidelines for the registration of pharmaceutical products. The course will also deal with the various aspects of chemical, pharmaceutical, pharmacological and microbiological quality control processes.

1120-515 Pharmacy Elective [Nutraceuticals] (3 C.H.)

The course will discuss all substances that are currently sold as dietary supplements. This would include preparations of pure chemical entities and complex mixtures of extracts. Outside of the scope of this course would be natural or synthetic drugs that commonly require prescriptions, except as they relate to interaction with or replacement by nutraceuticals.

1120-517 Pharmacy Elective [Natural Products Chemistry] (3 C.H.)

This course is intended to introduce pharmacy students to the concept of drugs

from natural sources and their importance and place in modern pharmacy. It imparts an awareness of the sources, biogenetic origins and their major classes.

1130-521 Pharmacy Elective [Cosmetics] (3 C.H.)

Students can expect to emerge from this course with knowledge of cosmetic products regarding their nature as well as formulations, indications and unwanted effects. This information is of a particular interest for conveying proper counseling to consumers looking for the pharmacist's consultation as drugs expert. Further, the study of ingredients used in the different cosmetic preparations and methods of their production in fields of industrial pharmacy will be highlighted. The following topics will be discussed in this course: Functions and uses of different cosmetic preparation, Morphology and structure of the skin, hair and nails, Uses of polymers in cosmetics industry, Formulation, manufacturing of different cosmetic preparations, Unwanted side effects of topically applied preparations, and Regulatory aspects of cosmetic preparations' dispensing.

1130-525 Pharmacy Elective s [Industrial Pharmacy] (3 C.H.)

This course introduces the students to the various materials of fabrication or construction of pharmaceutical apparatus and manufacturing plants. The course covers principles of pharmaceutical processes including filtration, mixing and size reduction. In this course students will also study methods of granulation of powder particles, heat drying of wet solids using pharmaceutical dryers, freeze-drying, tableting, and tablet coating. Other industrial aspects such as Good Manufacturing Practice (GMP) and Quality Assurance (QA) are also included in this course.

1140-533 Pharmacy Elective [Advanced Pharmacology] (3 C.H.)

This course is an advanced pharmacology course with some aspects of therapeutic drug monitoring (TDM). The course is designed to provide final year pharmacy students with an up-to-date knowledge on drug discovery development process, the usefulness of in vitro and in vivo models of human disease in basic research and in drug discovery and developments in important selected systems and molecular targets that are currently under pre-clinical and/or clinical evaluation as potential therapeutic drug targets (such as bradykinin receptors, phosphodiesterase isoenzymes and kinases and phosphatases etc.). The importance of TDM of some clinically important drugs is also addressed in this course.

1140-535 Pharmacy Elective [Advanced Therapeutics] (3 C.H.)

This course is a clinical pharmacokinetics course and it is designed to enable the students to understand how various disease states and conditions alter the pharmacokinetic parameters of drugs. It provides the students with the principles for dosing patients more rationally and monitoring the patients for optimal therapeutic response. The course provides aspects to perform therapeutic drug monitoring (TDM) in patients receiving medications for which drug concentrations can be measured in clinical practice (e.g., anti-infectives, anticonvulsants, cardiac medications, psychiatric medications, immunosuppressants).

Fifth Year, Semester 2

1110-542 Advanced Pharmaceutical Care (2 C.H.)

This course represents a capstone course which brings together all the knowledge the students have gained over the previous years and seeks to have them integrate and apply it in clinically-oriented case scenarios. The course parallels the clinical placements in course PP 1110-544 and draws on the students' experiences and patient encounters in the placements to develop their awareness of practical issues in the assessment of medication profiles, pharmaceutical care issue identification and prioritization and patient counselling. Small group sessions and problem-based learning techniques are used to involve students in the learning experience as much as possible. The aims of this course are to develop problem-solving skills in clinical cases, apply pharmaceutical care skills in patient case studies and appreciate the social and behavior aspects involved in medicine-taking.

1110-544 Hospital Professional Experience-2 (10 C.H.)

In this course students spent four days/week in clinical placements at sites in either hospital pharmacies or in medical departments of hospitals. Students will be divided into two groups. One group of students will attend hospital pharmacy placements before mid-semester exams while the other group will attend medical rotation(s). After the mid-semester exams, the groups rotate from medical to pharmacy placement and vice versa. The major objective is to develop specific skills in the areas of clinical pharmacy, problem solving, medication history taking, medications dispensing, patient counselling and therapeutic planning, and an appreciation of the role of pharmacists in health care teams.

1110-504 or 1120-514 or 1130-524 or 1140-534 Graduation Research Projects (3 C.H.)

For this course, students are assigned or select a research topic from a list provided by the various departments. Under the supervision of an academic staff member, each student prepares a comprehensive written review of 5000-6500 words on their chosen subject. They are also required to make an oral presentation of 20 minutes.

Course Prerequisites

First Year

First Semester

Course No.	Course Name	C.H.	Prerequisites #
1488-181	English I	5	None
1440-140	Chemistry for Health Sciences	3	None
1400-141	Biophysics	3	None
	Elective	3	None
1410-101	Intro. to Computers in Medicine	1	None

Second Semester

Course No.	Course Name	C.H.	Prerequisites #
1488-182	English II	5	1488-181*
1420-143	Biology for Health Sciences	4	1440-140, 1488-181*
1410-144	Biostatistics and Basic Epidemiology	3	1488-181*
	Elective	3	None

Second Year

First Semester

Course No.	Course Name	C.H.	Prerequisites #
0560-155	Anatomy	3	1420-143, 1488-182*
0410-115	Finite Mathematics	3	1488-182*, 1410-144
1488-183	English III	5	1488-182*
1120-217**	Organic Chemistry	4	1440-140, 1488-182*

Second Semester

Course No.	Course Name	C.H.	Prerequisites #
0530-152	Physiology	3	0560-155, 1188-183*
1120-218	Pharmaceutical Chemistry I	3	1120-217*, 1188-183*
1110-204	Foundation of Pharmacy Practice	5	1410-144, 1188-183*
1130-224	Pharmaceutics I	5	1120-217*, 1188-183*

(*) Or Equivalent ** Equivalent to 0420-114

Prerequisites can be different for different students depending on the year of enrollment. Students enrolled in 2011/2012 and after, cannot register in a given course unless they pass all courses in the previous semester.

Third Year

First Semester

Course No.	Course Name	C.H.	Prerequisites #
1120-317	Pharmaceutical Chemistry II	3	1120-218, 0530-152
1110-303	Community Pharmacy	2	1110-204, 1130-224
1110-305	Community Pharmacy-Practical	1	1110-204, 1130-224
1130-323	Pharmaceutics II	4	1130-224, 1120-218
1140-333	Pharmacology I	3	0530-152, 0560-155
1140-331	Pathophysiology I	3	0530-152, 0560-155

Second Semester

Course No.	Course Name	C.H.	Prerequisites #
1120-318	Pharmaceutical Chemistry III	3	1120-317, 1140-331, 1140-333
1110-304	Introduction to Pharmaceutical Care	2	1110-303, 1110-305, 1140-331, 1140-333
1110-306	Introduction to Pharmaceutical Care Practical	1	1110-303, 1110-305, 1140-331, 1140-333
1130-324	Pharmaceutics III	3	1130-323, 1120-317
1140-334	Pharmacology II	3	1140-331, 1140-333
1140-332	Pathophysiology II	3	1140-331, 1140-333

Fourth Year

First Semester

Course No.	Course Name	C.H.	Prerequisites #
1120-415	Pharmaceutical Chemistry IV	3	1120-318, 1130-324, 1140-334
1110-403	Pharmaceutical Care I	2	1110-304, 1110-306, 1140-332, 1140-334
1110-405	Pharmaceutical Care I-Practical	2	1110-304, 1110-306, 1140-332, 1140-334
1130-423	Pharmaceutics IV	3	1130-324, 1120-318
1140-431	Pharmacology and Pharmacotherapeutics	3	1140-331, 1140-332, 1140-333, 1140-334
1120-411	Biotechnology	2	1120-317, 1120-318

Prerequisites can be different for different students depending on the year of enrollment. Students enrolled in 2011/2012 and after, cannot register in a given course unless they pass all courses in the previous semester.

Second Semester

Course No.	Course Name	C.H.	Prerequisites #
1110-404	Pharmaceutical Care II	2	1110-403, 1110-405, 1140-431
1110-406	Pharmaceutical Care II Practical	2	1110-403, 1110-405, 1140-431
1130-424	Pharmaceutics V	2	1130-423, 1120-411
1140-432	Pharmacotherapeutics I	6	1140-431, 1120-415
1130-434	Pharmacokinetics	4	1140-431 1120-415

Fifth Year

First Semester

Course No.	Course Name	C.H.	Prerequisites #
1110-507	Administrative and professional Pharmacy	2	1110-404, 1110-406, 1140-432, 1140-434
1110-509	Hospital Professional Experience I	2	1110-404, 1110-406, 1140-432, 1140-434
1140-531	Pharmacotherapeutics II	6	1140-432, 1140-434
1110-503	Drug Information Services	3	1110-404, 1110-406, 1140-432, 1140-434
1120-513	Quality Control of Pharm.	3	1120-415, 1120-411
1120-515	Nutraceuticals	3	1120-415, 1120-411
1120-517	Natural Products Chemistry	3	1120-415, 1140-432, 1130-434
1130-521	Cosmetics	3	1130-423
1130-525	Industrial Pharmacy	3	1130-423
1130-523	Advanced Pharmaceutics	3	1130-424
1140-533	Advanced Pharmacology	3	1140-431, 1120-415

Second Semester

Course No.	Course Name	C.H.	Prerequisites #
1110-542	Advanced Pharmaceutical Care	2	1110-507, 1110-509, 1140-531
1110-544	Intro Pharm Practice Exp. In Hospital Settings	10	1110-507, 1110-509, 1140-531
Graduation Research Project 1110-504, 1120-514, 1130-524, and 1140-534		3	1110-507, 1110-509, 1140-531, Any two Pharmacy Electives

Prerequisites can be different for different students depending on the year of enrollment. Students enrolled in 2011/2012 and after, cannot register in a given course unless they pass all courses in the previous semester.

II- The Add-on PharmD Program

This two-year add-on PharmD program was launched in the 2016/2017 academic year. Students enrolled in the fifth-year pharmacy program, have the option of obtaining the BPharm degree, then re-admitted to the two-year PharmD program, if they fulfill the admission requirements for this program. Also, pharmacists who have pharmacy degree from Kuwait University or other approved universities can apply for the PharmD program.

Graduates of the PharmD program will be professionals who serve as clinical pharmacists on the interdisciplinary health care team and have the responsibility of assuring and promoting the safe, rational, efficacious, and cost-effective use of medication therapy with the goal of achieving definite outcomes toward improvement of the patient's health status and quality of life. The PharmD graduates will be trained to provide clinical pharmacist role in patient care in addition to the pharmacist role in dispensing and be actively involved in the multidisciplinary team alongside physicians and nurses and other healthcare providers.

The PharmD program is designed to graduate:

1. Patient-centered, collaborative healthcare providers
2. Self-guided, life-long learners using evidence to support decisions and practice
3. Accountable practitioners with reputable professionalism and ethical behavior
4. Community-oriented professionals conceiving value-added services and public health promotion activities
5. Engaged professional leaders and advocates with significant mentoring and communication skills

1. Graduates will be empowered with competencies to:

- **Communicate:** Pharmacists communicate effectively with patients, the pharmacy team, other health care professionals and the public, providing education when required, using effective verbal, non-verbal, listening and writing skills in both individual and group settings.
- **Access & Critically Appraise Information:** Pharmacists access, retrieve and critically analyze information to make evidence-informed decisions within their practice and management with the goal of ensuring safe and effective patient care.

- **Solve Problems & Make Decisions:** Pharmacists apply relevant information to make evidence-informed decisions within their practice and management with the goal of ensuring safe and effective patient care as a medication therapy expert.
- **Collaborate:** Pharmacists work in collaboration with the pharmacy team, other HCP and groups/ associations to deliver comprehensive services, make best use of resources and ensure continuity of care in order to achieve the patient's health goals.
- **Engage in Life-Long Learning:** Pharmacists seek to remain competent and update their knowledge, skills and attitudes to offer optimal education and patient care throughout their professional career)
- **Manage:** Across the different components of their practice, pharmacists apply good management principles for time and human resources management, process optimization and marketing of services)
- **Act Professionally:** Pharmacist uphold self-regulation within legal requirements, professional standards of practice, code of ethics and policies for the fulfillment of their professional obligations)
- **Be Proactive:** Pharmacists initiate or collaborate in developing, implementing and evaluating research, policies, procedures and other activities that promote quality and safety, health and well-being, and the profession.

1. Admission Policy

1.1. Admission types

Full-time, Post-Baccalaureate PharmD program

1.2. Admission Requirements

A. Students who are enrolled in KU BPharm Program

- Admission of the students who are enrolled in KU BPharm Program to the PharmD program is optional.
- Students will have to successfully complete the fifth year in the BPharm program and obtain a Bachelor degree in Pharmacy*.
- A minimum general GPA of 2.5 on the 4-point scale.
- Students should not have obtained one or more grade of "F" in more than one semester.
- Assessment on the applicant fundamental pharmacy knowledge and practice issues.

* The progression of students from the B Pharm program (5 years) to the Pharm D program (2 years) will be similar to the progression of the students in the Faculty of Medicine and the Faculty of Dentistry after they finish the fourth year, and progress to the Clinical phase of their study.

B. Pharmacy graduates

- Kuwaiti and non-Kuwaiti graduates from KU BPharm program.
- A minimum general GPA of 2.5 on the 4-point scale.
- Assessment on the applicant fundamental pharmacy knowledge and practice issues.
- Pharmacy graduates accepted to the PharmD program are responsible for making their own arrangement with their employers to be enrolled in this full-time program.

1.3. Ranking of Applicants

The criteria for ranking the applicants

- The general GPA 25%
- The specialty GPA 25%
 - a. For KU graduates:** Based on the grades in the following courses:
 - 1110-542 Advanced Pharmaceutical Care
 - 1110-507 Administrative and professional Pharmacy
 - 1110-404 Pharmaceutical Care II
 - 1110-406 Pharmaceutical Care II-Practical
 - 1110-403 Pharmaceutical Care I
 - 1110-405 Pharmaceutical Care I-Practical
 - b. For graduates from other universities:** Based on the grades in courses related to the pharmacy practice
- An assessment in the field of Pharmacy practice 50%
This includes assessment of the candidate's capabilities, knowledge, caring attitude, motivation, leadership, and problem-solving ability.

1.4. BPharm students admitted directly to the PharmD program

- All students who complete the BPharm requirements (including those applying to the PharmD program) will get their BPharm Degree Certificate from Kuwait University.
- Applicants accepted to be enrolled in the PharmD program will be re-admitted to Kuwait University, and will not be allowed to work during their studies.

- The GPA of students in the PharmD program will be the cumulative GPA from the BPharm program + the PharmD program.

1.5. Duration of the study

The duration of the study is two years with the first year being mostly active learning with practice laboratory built in into each class and the second year dedicated to various experiential clerkships where the students get to apply their knowledge and demonstrate their clinical competencies.

1.6. Requirements to remain in the program

- Attendance (as per the University requirement) in both theory and practical components of the program.
- Satisfactory completion of course assignments, projects, and others.

2. Global Curriculum Characteristics

- Active learning
 - The curriculum engages and challenges the student to develop defined competencies (competency-based approach).
 - Competencies have different levels of expectations as student progress and these levels are known in advance.
 - The curriculum prepares the students to become life-long learners by finding quality and relevant information, and developing skills to summarize, analyze and evaluate the literature.
- Pharmacy practice labs
 - Theory is confronted with practical problems in a secure environment.
 - Students come prepared to the different lab sessions.
 - A mix of academic support staff, practicing pharmacists and 2nd year PharmD students provide supervision and feedback.
- Projects
 - Students (team-based) conceive and implement relevant community-based projects for advancing pharmacy practice or improving the outreach and image of pharmacy (advocacy).
 - Peer-assessment is implemented and used regularly to stimulate active participation of all team members.
- Practice experience
 - The practice experiences are a natural continuity from the content seen in the courses, skill labs or projects.

- Rotations are preceptor-based but constructed to provide optimal guidance and active involvement of students.
- Mid-clerkship formative assessment is mandatory to allow remediation and preceptor assessment is performed by students after each rotation.
- There is one elective rotation that is not direct patient care, taking the form of a project. This project could be assessed through a presentation to first year PharmD students.
- Quality assessment and improvement
 - The curriculum is assessed periodically, both in terms of the pedagogical environment and quality of the graduates (keeping in mind the 5 major objectives).
 - Key performance indicators (KPI) are developed to measure important aspects of the curriculum (input, transformation and output) over time.
- Learning methods selection
 - The learning material is spread through active learning classes, labs, projects and practice experience, to offer a learning continuum.
 - The global learning framework is similar across the curriculum.
 - Methods represent a form of active learning enabling the student to construct surface and deep understanding (analyze, apply and evaluate according to Bloom's taxonomy).
 - Methods require that students deal with problematic situations using critical thinking.
- Student support
 - An orientation activity is organized for new students to understand the learning environment.
 - The supervision is more individualized though periodical monitoring and with the help of small group tutors.

3. Assessment

- Global assessment framework (programmatic assessment)
 - Assessment will be done in a more continuous fashion. The last assessment of a course will represent a minimum of 40% of the total grade.
 - The assessment framework measures the progression of the students in their knowledge acquisition and competency development.
 - The number of measurements is sufficient to assess the progression

of a student. Students are assessed early and continuously and on an individual basis as much as possible, even within group activities.

- Since assessment drives learning, assessment focuses on higher dimensions of learning (applying, analyzing and evaluating in the revised Bloom’s taxonomy).
 - The grade assignment for courses follows same scale as in the BPharm Program.
- Methods of assessment and feedback
 - Methods of assessment are coherent with the competency or the knowledge assessed.
 - A feedback component (either individually or as a group) is part of each assessment method in each course.

4. Degree Requirements

4.1. Major Sheets

Course No.	Course Name	C.H.	Prerequisites #
First Year			
First Semester ¹			
1110-611	Clinical Pharmacokinetics	3	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director.
1110-613	Physical and Chemical Assessment	3	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director.
1110-615	Evidence-based Pharmacy Practice I	2	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director.
1110-617	Advanced Pharmacotherapy I	4	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director.
1110-619	Advanced Pharmacotherapy II	4	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director.
1110-621	Social and Behavioral Aspects of Pharmaceutical Care	2	1110-504 or 1120-514 or 1130-524 or 1140-534 or approval of the PharmD program director.

Second Semester ²			
1110-622	Advanced Pharmacotherapy III	4	1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621.
1110-624	Advanced Pharmacotherapy IV	4	1110-611, 1110-613, 1110-615 1110-617, 1110-619 and 1110-621.
1110-626	Advanced Pharmacotherapy V	4	1110-611, 1110-613, 1110-615, 1110-617, 1110-619 and 1110-621.
1110-628	Advanced Pharmacotherapy VI	4	1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621.
1110-630	Evidence-based Pharmacy Practice II	2	1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621.
Second Year ^{3,4}			
All courses are practice experience placements ^{3,4} Each experiential clerkship is 5-7 weeks long ^{5,6}			
1110-711	Advanced Professional Practice Experience-I	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630.
1110-712	Advanced Professional Practice Experience-II	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630.
1110-713	Advanced Professional Practice Experience-III	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630.
1110-714	Advanced Professional Practice Experience-IV	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630.
1110-715	Advanced Professional Practice Experience-V	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630.
1110-716	Advanced Professional Practice Experience-VI	5	1110-622, 1110-624, 1110-626, 1110-628, and 1110-630.

¹ Registration for the first semester courses (1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621) requires admission to the PharmD program and students are required to get approval of the Director of the PharmD program.

² Students will have to successfully complete all the courses in the first semester (1110-611, 1110-613, 1110-615, 1110-617, 1110-619, and 1110-621) with an average GPA of at least 2.0 to register any of the courses in the second semester.

³ Three of the second-year courses (Experiential clerkships, 1110-711, 1110-712, 1110-713, 1110-714, 1110-715, and 1110-716) will be offered in the first semester and the other three will be offered in the second semester.

⁴ The students must successfully complete all the first-year courses (6 courses in the first semester, totaling 18 Credits, and 5 courses in the second semester, totaling 18 credits), with an average GPA of at least 2.0, before they can register for the 700 courses (the experiential clerkship).

⁵ Experiential clerkship: 30 hours per week = 5 credit hours per semester (direct and non-direct patient care clerkships).

⁶ The students will be supervised and evaluated by a qualified preceptor during each clerkship, and the Faculty will provide support both to the students and preceptors on a needs basis.

5. Progression in the Program

5.1. General rules:

- Students, stopping their studies for medical reasons, resume their studies as soon as possible. During the leave.
- Students have a maximum of 3 years (from the time of admission) to complete the program.

5.2. During the first year:

- Before starting a semester, a student must complete successfully all the courses of the prior semester with an average above 2.0
- Students not passing a course will have a chance to sit for a re-sit examination. Students failing a re-sit exam are allowed to repeat the course only once.

5.3. During the second year:

- Students failing a clerkship (course), must repeat the clerkship (course) after the current year (no re-sit possible)
- Failing more than two clerkships (course) leads to dismissal from the program.
- Failing twice the same clerkship (course) is also grounds for dismissal.
- Students having a critical issue (endangering the patient life) during a clerkship (course) are dismissed from this rotation (with F grade), (A list of critical issues is provided to the students and preceptors).

5.4. Requirements for graduation:

A. Successful completion of all the first-year courses:

○ Clinical Pharmacokinetics	3 credits
○ Physical and Chemical Assessment	3 credits
○ Evidence-based Pharmacy Practice I	2 credits
○ Advanced Pharmacotherapy I	4 credits
○ Advanced Pharmacotherapy II	4 credits
○ Social & Behavioral Aspects of Pharmaceutical Care	2 credits
○ Advanced Pharmacotherapy III	4 credits
○ Advanced Pharmacotherapy IV	4 credits
○ Advanced Pharmacotherapy V	4 credits
○ Advanced Pharmacotherapy VI	4 credits
○ Evidence-based Pharmacy Practice II	2 credits

A total of 36 Credit hours during the first year of the program

B. Successful completion of all second-year clerkship (courses):

○ Advanced Professional Practice Experience-I	5 Credits
○ Advanced Professional Practice Experience-II	5 Credits
○ Advanced Professional Practice Experience-III	5 Credits
○ Advanced Professional Practice Experience-IV	5 Credits
○ Advanced Professional Practice Experience-V	5 Credits
○ Advanced Professional Practice Experience-VI	5 Credits

A total of 30 credits during the second year of the program.

5.5. Additional Requirements

None

6. Course Descriptions

1110-611 Clinical Pharmacokinetics (3 C.H.)

This course combines the theoretical and case-based approach to teaching students how to manage drug therapy from a kinetic perspective. Students will learn to evaluate variability in pharmacokinetics due to physiological as well as disease states. They will also learn to approach dosage determinations based upon kinetic properties (i.e. low extraction ratio hepatically cleared drugs, high extraction ratio hepatically cleared drugs, renally cleared and mixed renally and hepatically cleared drugs). Students will then be given the opportunity to practice dosing selected drugs using a case-study scenario.

1110-613 Physical and Chemical Assessment (3 C.H.)

This course is designed to provide students the basic knowledge necessary to understand the appropriate physical examinations done on a patient and be able to perform only certain basic physical exams such as reading blood pressure, pulse, and temperature. On the other hand, it will also provide the information needed to understand and evaluate common laboratory tests, both OTC and those requiring a physician order.

1110-615 Evidence-based Pharmacy Practice I (2 C.H.)

This course will introduce students to evidence-based pharmacy practice. Course content will focus on drug information and pharmacoepidemiology. It is designed to provide the student with fundamentals of the practice of drug information. It will concentrate on development of drug information skills necessary for delivery of pharmaceutical care using a systematic approach to drug information retrieval and the ability to judge the reliability of various sources of information. It will help the student to participate in the pharmaceutical care system's processes for conducting drug utilization reviews/evaluations (DUR/DUE) within medication management system, and for reporting and managing medication errors and adverse drug reactions.

1110-617 Advanced Pharmacotherapy I (4 C.H.)

This course focuses on the pharmacotherapy and the role of the pharmacist in cardiovascular and pulmonary disease state management of Hypertension, Ischemic Heart Disease, Arrhythmias, Myocardial Infarction, Heart Failure, Stroke, Lipid Disorders, Anticoagulation, Asthma, and Chronic Obstructive Pulmonary Disease (COPD). Emphasis will be placed on the integration of chemistry, pharmaceuticals, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-619 Advanced Pharmacotherapy II (4 C.H.)

This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of fluid/electrolyte balance, renal disease, and common gastrointestinal and nutritional disorders. Major gastrointestinal disorders include pancreatitis, inflammatory bowel disease, diarrhea and constipation, liver failure, peptic ulcer disease, gastroesophageal reflux disease (GERD), and hepatitis. Major nutritional topics include nutritional assessment,

parenteral and enteral nutritional support, nutrition in special populations, and nutritional supplements. Emphasis will be placed on the integration of chemistry, pharmaceuticals, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-621 Social and Behavioral Aspects of Pharmaceutical Care (2 C.H.)

This course will help develop effective methods for developing positive, therapeutic relationships with patients through the application of communication skills (empathy, assertiveness training, effective listening, etc.) and other behavioral interventions.

1110-622 Advanced Pharmacotherapy III (4 C.H.)

This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of Infectious Diseases. Examples of infectious diseases covered include CNS infections, infective endocarditis, respiratory and urinary tract infection, gastrointestinal infections, septicemia, bone and joint infections, skin and soft tissue infections, sexual transmitted diseases and infections of obstetrics. Emphasis will be placed on the integration of chemistry, pharmaceuticals, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-624 Advanced Pharmacotherapy IV (4 C.H.)

This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of cancer and hematological diseases. Examples of cancers covered include solid tumor malignancies such as breast cancer, prostate, cancer, colorectal cancer, lung cancer; hematological disorders such as anemia and bleeding disorders; and hematological malignancies such as leukemia, lymphoma, and myeloma. Emphasis will be placed on the integration of chemistry, pharmaceuticals, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-626 Advanced Pharmacotherapy V (4 C.H.)

This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of disorders of central nervous system and common disorders of pediatrics and geriatrics. Examples of disorders of central nervous system covered include Alzheimer's disease, Parkinson's disease, seizure disorders, and depression. Emphasis will be placed on the integration of chemistry, pharmaceuticals, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-628 Advanced Pharmacotherapy VI (4 C.H.)

This course focuses on the pharmacotherapy and the role of the pharmacist in disease state management of both endocrine and immune disorders including hormone replacement, osteoporosis, rheumatoid and osteoarthritis, lipid disorders, diabetes, and multiple sclerosis. Emphasis will be placed on the integration of chemistry, pharmaceuticals, pathophysiology, pharmacology and therapeutics to devise appropriate pharmacy care plans. These plans will include rationale for drug use, selection and dosing regimens, expected outcomes of drug therapy, key monitoring parameters, clinically important drug-drug or drug-disease interactions, counseling and compliance issues.

1110-630 Evidence-based Pharmacy Practice II (2 C.H.)

Course content will focus on biostatistics/literature evaluation and pharmacoeconomics. It is designed to help the student to understand principles of biomedical statistics, fundamentals of clinical research design, and systematic approaches for critical evaluation of medical literature for use in clinical and/or administrative decision-making, use of research as a tool to investigate and provide solutions to practice-based problems. It will acquaint the student with the economic principles in relation to pharmacoeconomic analysis, concepts of pharmacoeconomics in relation to patient care, application of economic theories and health-related quality of life concepts to improve allocation of limited health care resources.

1110-711 Advanced Professional Practice Experience-I (5 C.H.)

This course provides supervised practical experience in a hospital setting occurring on an adult Internal Medicine Service evaluating and providing direct patient care including and not limited to cardiology, endocrinology,

gastroenterology, and respiratory patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-712 Advanced Professional Practice Experience-II (5 C.H.)

This course provides supervised practical experience in hospital setting occurring on an adult Critical and Acute Care Service evaluating and providing direct patient care including and not limited to Intensive Care Unit, Coronary Care Unit, and Acute Care Patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-713 Advanced Professional Practice Experience-III (5 C.H.)

This course provides supervised practical experience in an Ambulatory Care setting evaluating ambulatory care patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-714 Advanced Professional Practice Experience-IV (5 C.H.)

This course provides supervised practical experience in a hospital setting evaluating and providing direct patient care to a special population and variety of health care needs including but not limited to hematology/oncology, transplant unit, and infectious disease patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-715 Advanced Professional Practice Experience-V (5 C.H.)

This course provides supervised practical experience in a hospital setting evaluating and providing direct patient care to a special population and variety of health care needs including but not limited to pediatric, geriatric, neurology, and psychiatry patients. Students will be required to assimilate patient relevant data, design a pharmaceutical care and monitoring plan, promote public awareness of Health and disease, provide continuing educational program, and manage medication related problems.

1110-716 Advanced Professional Practice Experience-VI (5 C.H.)

This rotation is a Non-Direct Patient Care rotation (NDPC). It will occur in practice area in sites that do not primarily provide direct patient care, students can electively choose from a variety of themes and practice areas based on their interest, such as Administration /Management, Drug Use Evaluation, Drug Information, Drug/Medication /Patient safety, Antibiotic Stewardship, Government/Health Services, Health outcomes, Pharmacovigilance, Pharmaceutical Journals, Hospital/Health care Team Clinical Services, Research, Teaching and Education. Students will participate and take responsibility for acquiring knowledge and skills in various structures and functions of pharmacy Practice or health care systems. Students will communicate regularly and collaborate with team members.

III- Master Program in Pharmaceutical Sciences (MSc)

The Faculty of Pharmacy launched its postgraduate master program in pharmaceutical sciences (MSc) in September 2014. The establishment of this program was one of the faculty's strategic goals in-line with its mission to continuously develop the pharmacy education in Kuwait. This program was the first multidisciplinary graduate program in the area of pharmaceutical sciences in Kuwait. Its major objective is to prepare graduates to be future academicians and researchers who are highly knowledgeable, skillful and competent in the pharmaceutical sciences in order to meet the current Kuwaiti society's pharmaceutical needs and deal with the future challenges and development in pharmaceutical sciences and their applications in Kuwait and the Middle East and North Africa (MENA) region.

Vision

To be a leading postgraduate MSc program in the MENA region that provides students with up-to-date knowledge and know-how related to the pharmaceutical sciences, in addition to developing, in our students, cutting edge research skills and competencies through innovative teaching methodologies and exposure to state of the art technology.

Mission

This program is primarily designed to:

- Impart advanced knowledge and skills related to pharmaceutical sciences.
- Provide opportunities to those who wish to peruse postgraduate training in the field of pharmaceutical sciences in Kuwait.
- Promote lifelong learning and prepare students to be independent, creative and competent researchers who are able to deal with fast developing challenges in the area of pharmaceutical sciences.
- Prepare individuals who are able take on challenges related to the healthcare system in Kuwait and the MENA region.

1. Admission

1.1. Admission Policy

All applicants to the Master program submit their applications to the College of Graduate Studies, Kuwait University.

1.2. Admission Types Allowed

Full-Time (regular students) or part-time (non - regular students). Different regulations apply to the different admission types.

1.3. Admission Requirements

- i. All candidates must hold a bachelor's degree in pharmacy or PharmD from the faculty of pharmacy, Kuwait University or from other faculties of pharmacy recognized by Kuwait University/Ministry of Higher Education. Strong applicants with bachelor's degree in biomedical sciences may also be considered.
- ii. All candidates must have a minimum GPA of 2.67 (all subjects for full-time) and 2.60 (all subjects for part-time) on a 4.00 point- scale or equivalent.
- iii. All candidates must have a minimum TOEFL score of 500 for English language proficiency.

1.4. Student Selection Criteria

All applicants are ranked based on their score which is made up of three criteria:

- A written exam (25%)
- An interview evaluating the candidate's capabilities and aptitude (15%). This is based on a College of Graduate Studies standard interview template.
- The GPA of the student. A tapering scale is used to allocate a % that is based on the GPA (max 60%)

1.5. Degree Requirements

- Completion of 24 credits of the course work, distributed as 12 credits (semester 1) and 12 credits (semester 2).
- Obtaining an overall average GPA of 3.00 points on a scale of 4.00.
- Successful defense of the thesis.

1.6. Program Capacity

Six qualified candidates are admitted in the program per year. The number may change according to the availability and needs of the Faculty.

1.7. Duration of the Study

The program has two main components: taught courses and a research project. The taught courses are covered in the first year of the program which

is divided over two semesters. After successfully completing the first year, the students then register for their thesis project which can take anywhere from 12 -18 months.

A full-time student should graduate within 3.5 years and a part-time student must graduate within 4.5 years.

1.8. Exams

The evaluation of the students in the program is based on written and oral assessment methods. The written component may comprise cases studies, short answer questions, short notes, problem-based learning, essays and a mini-project. These are done both in a continuous assessment format and as mid and end of term exam papers. The oral assessment is based on seminars/ presentations delivered by students on a variety of topics in several of the courses. After submission of the of research project thesis, the student will present a seminar on their work and will defend their work to an examination committee.

2. Curriculum

Major Sheet

PROGRAM REQUIREMENTS

24 TOTAL COURSE CREDITS

21 COMPULSORY COURSES (Credits in parenthesis)

1100-525	Advanced Biopharmaceutics and Pharmacokinetics	(3)
1100-540	Drug Discovery and Development	(3)
0550-505	Molecular Pharmacology	(2)
0510-501	Biostatistics and Computer in Medicine	(2)
2000-501	Scientific Writing and Communication Skills	(3)
1100-520	Advanced Pharmaceutical Chemistry	(3)
1100-521	Techniques in Pharmaceutical and Pharmacological Research	(3)
2000-503	Ethics and Professionalism	(2)

3 ELECTIVE COURSES

1100-522	Evidence-based Phytotherapy	(3)
1100-527	Advanced Drug Delivery Systems	(3)
1100-541	Central Neuropharmacology	(3)

The student should select only ONE course from the list of elective courses.

COMPULSORY (Thesis)*

1100-597 I	(0)
1100-598 II	(0)
2000-599 III	(9)

* Minimum GPA: 2.67, Minimum Credits: 12 C.H.

The MSc courses are divided on TWO semesters:

Semester 1

1100-525	Advanced Biopharmaceutics and Pharmacokinetics	(3)
0550-505	Molecular Pharmacology	(2)
0510-501	Biostatistics and Computer in Medicine	(2)
1100-520	Advanced Pharmaceutical Chemistry	(3)
2000-503	Ethics and Professionalism	(2)

Semester 2

1100-540	Drug Discovery and Development	(3)
2000-501	Scientific Writing and Communication Skills	(3)
1100-521	Techniques in Pharmaceutical and Pharmacological Research	(3)
1100-522	Elective	(3)

3. Course Descriptions

0500-501 Biostatistics and Computer in Medicine (2 C.H.)

The course provides the different concepts of statistics such as basic probability issues, sampling distribution, correlation, regression and the applications of these concepts in Epidemiology. The course provides the students the different types of computers, software packages and the use of computers in medicine and pharmacy, health information and drug information systems.

2000 503 Ethics and Professionalism (2 C.H.)

This course provides the definition of ethics and professionalism, ethics in conducting research and reporting results, components of ethics and professionalism, ethics in Islam, professionalism and leadership, environmental ethics, conflict of interest, case studies.

1100-525 Advanced Biopharmaceutics and Pharmacokinetics (3 C.H.)

This course provides the molecular, physiological and pathological factors affecting drug absorption and how these factors can be modified to optimize the absorption process. The course also provides the different experimental models that can be used to study drug pharmacokinetics in humans. Important issues including drug-drug interactions, bioavailability-bioequivalence, pharmacokinetic and pharmacodynamic correlations are discussed. A survey of the various techniques pertinent to clinical pharmacokinetics and dosage adjustments are overvieWednesday The fundamentals of therapeutic drug monitoring (TDM) for dosing patients more rationally and safely are discussed.

1100-540 Drug Discovery and Development (3 C.H.)

This course provides an understanding of the interrelated activities throughout the drug development cycle. All steps involved in developing a drug from discovery to marketing are discussed. The latest innovations in drug discovery, issues of drug pharmacokinetics in drug discovery, issues of ethical and governance requirements of research including Good Clinical Practice are revieWednesday Moreover, chemical and biochemical approaches to drug design and the role of the functional groups in drug-receptor interactions are studied.

0550-505 Molecular Pharmacology (2 C.H.)

The course provides an understanding of the molecular interactions between drug molecules and receptors or other macromolecular targets in cells, as well as how the chemical structure correlates with biological activity. The course discusses how cells receive, transmit and respond to external signals from hormones, transmitters and pharmacological agents, and how molecular biology techniques are utilized to study these events. The course introduces the students to the latest advances in molecular pharmacology, namely, pharmacogenomics, bioinformatics, proteomics, micro-array technology, gene silencing technology and their applications in pharmacological research.

1100-521 Advanced Pharmaceutical Chemistry (3 C.H.)

This course provides an updated chemistry knowledge of important synthetic and natural medicinal compounds. The organic chemistry methodologies for the chemical synthesis of compounds of pharmaceutical interests are revieWednesday The physicochemical properties, metabolic pathways, structure-activity relationships (SARs) and therapeutic and toxicological aspects will be discussed. Important medicinal classes such as psychoactive compounds, antibiotics, anticancer agents, immunosuppressive agents,

steroids were demonstrated and discussed in detail. Instrumental techniques for structural elucidation and for biopharmaceutical analysis of drugs, metabolites and biomolecules in biological media are studied.

1100-521 Techniques in Pharmaceutical & Pharmacological Research (3 C.H.)

This course provides the students with important techniques and skills necessary for pharmaceutical research. Pharmaceutical Chemistry Laboratory sessions related to the isolation and structural elucidation of compounds from natural and synthetic sources are given. Spectrometric (UV/VIS, IR), mass spectrometric (MS, NMR), chromatographic (TLC, UPLC, LC-MS/MS, GC-MS) are used. Pharmaceutics Laboratory sessions dealing with drug dissolution and stability studies are conducted. Laboratory problems related to the biopharmaceutics and pharmacokinetics determinations in animals are addressed. The course also provides laboratory experiments on important pharmacological techniques in the research areas of neuropharmacology, respiratory pharmacology, therapeutic drug monitoring, pain and inflammation pharmacology are conducted.

2000 501 Scientific Writing and Communication Skills (3 C.H.)

This course provides a review of the language of scientific writing and its appropriate use, art of writing a grant, thesis and manuscript, use of software for references, response to reviewer's comments, communicating and disseminating scientific information to audience.

1100-522 Evidence-based Phytotherapy (Elective) (3 C.H.)

This course provides the basis of evidenced-based evaluation of Phytotherapy, Complementary and Alternative Medicine (CAM) modalities. Students explore the utilization of herbal dietary supplements and CAM therapies. Claims, regulations and standardization of herbal medicines are highlighted. Classes of natural products: such as Carbohydrates, Alkaloids, Glycosides, Flavonoids, Tannins, Bitter Principles, Vitamins and constituents from toxic plants; are discussed with respect to the sources, chemical structures, biological roles, and medicinal products.

1100-527 Advanced Drug Delivery Systems (3 C.H.)

This course discusses the biochemical and physiological barriers that hinder the drug delivery to various body organs. The strategies of overcoming these barriers and approaches used to design drug delivery systems for specific therapeutic use are surveyed. In vivo and in vitro evaluations of the designed

delivery systems are discussed. This course also focuses on the fundamental concepts of specialized modern dosage forms such as sustained-release formulations, melting and fast disintegrating tablets, depot injections and inhalation products. The expected outcomes of administration of these drug formulations such as patient compliance and reduction of the caring costs are overvieWednesday

1100-541 Central Neuropharmacology (3 C.H.)

This course provides a comprehensive coverage of the molecular composition, physiology, function and pharmacology of neurons and the pathological changes that lead to CNS disorders. The different neurotransmitter systems and their roles in the physiology and pathology of CNS disorders are covered. Pharmacological agents in current medical use as well as the future therapeutic agents are discussed.

The Code of Conduct

for Students Enrolled in the Faculty of Pharmacy
Kuwait University

1. Introductions

This code of conduct is a set of guidelines on how pharmacy students should behave during their studies in the Faculty of Pharmacy, Kuwait University. It is one way of ensuring that, while the students learn the competencies required for their practice, they adhere to the professional, ethical, and legal standards prescribed for the practice of the pharmacy profession.

Pharmacy students must conduct themselves professionally at all times, from the first day of the program to their graduation day. This code of conduct applies both on and off campus, and students must remember that wherever they are, they are representing the profession of pharmacy and their university.

The code of conduct for student pharmacists is typically reviewed during the orientation to the Pharmacy program and is enforced throughout the time the student is enrolled in the Faculty of Pharmacy. It is important that every student in the pharmacy program carefully read and understand the code of conduct. There may be behaviors described which you have previously carried out and are now deemed unacceptable by the code.

Students in the Pharmacy program at Kuwait University are obliged to follow the code of conducts for the pharmacy students, in addition to the general code of ethics* for all Kuwait University students which governs the student relationship with the academic staff members and employees, the university, their colleagues, and the community.

*Download KU Code of Ethics at:

<http://www.kuniv.edu/ku/Students/References/index.htm>

2. Professionalism

Students admitted to the pharmacy program are considered future members of the pharmacy profession and therefore bear the responsibility of building professional identity founded on integrity, ethical and legal behavior, and honor. This development is a vital component of the pharmacy program and while the students learn about the discovery, development and use of safe and effective medications, they develop values, attitude and competencies

that they will use as pharmacists to promote the health and wellbeing of patients. Integrity, honesty and honor should be part of the student's daily activities throughout the program.

To accomplish this goal of professional development, pharmacy student should:

a. Develop a sense of loyalty to the pharmacy profession

You must accept all the responsibilities and accountabilities for belonging to the pharmacy professions including high professional aspirations for pharmacy practice, high personal standards of integrity and competence, a commitment to serve the patients and the society, habits of analytical thinking and ethical reasoning, and a commitment to lifelong learning.

b. Make patients your first concern

You must ensure that whatever you learn in the pharmacy program, you can apply for the maximum benefit of patients, and your professional judgments should be to the best interest of the patients and the community and is not influenced by your personal beliefs or individual interest.

c. Foster professional competency to provide optimal patient care

You should take the responsibility for the development of your professional knowledge and competencies, throughout the pharmacy program and to be able to apply these knowledge and skills in managing the patient therapeutic plan and pharmaceutical care. Also, you must be aware of the importance of continuous professional development which is required to maintain the up-to-date knowledge and skills required for the pharmacy profession.

d. Show respect to others

You must know that to develop a proper professional relationship with patients, other health care professionals, colleagues, and any member of the society, you should demonstrate respect to their abilities, views, rights, and beliefs, in addition to treating them politely. While disclosing the information necessary to optimize the patient care to other professionals, you must respect the confidentiality of the patient information.

e. Be honest and trustworthy

You must act with honesty and integrity, respond openly and courteously to complain and criticism, use laboratory data honestly and ethically, and

honor your commitment to ethical, legal, and professional behavior.

f. Maintain the highest ideals and professional attributes

You must follow the rules and regulations of your university, comply with this Code of Conduct, conduct yourself appropriately, plan and use your time effectively, ask for help once you feel that you need it, and take responsibility of your own health especially when it impact the health of others.

The pharmacy profession requires adherence to the highest standard of professional and ethical behavior to ensure the quality of patient care provided. Commitment to these high standards should start from the time of joining the Faculty of Pharmacy community and should be sustained while progressing to join the pharmacy profession.

3. Academic Conduct

3.1. Behavior: Students should adhere to the acceptable standard of behavior and recognize diversity and respect the cultural differences, values and beliefs of others, including fellow students and staff members. Staff members should also professionally treat the students with understanding, dignity, and respect.

3.2. Attendance: Students are expected to attend the practical sessions and lectures. The attendance requirements and the excused absence from classes and examination are covered in the Faculty of Pharmacy Standard procedures (SP-A001–Excused Absence from Examinations/Classes/Laboratories). Failure to meet the attendance requirement in a course will prevent the student from sitting for the final examination of that course. Disruptive behavior, talking without permission, or using mobile phones by students during lectures or laboratory sessions are usually not tolerated, and offenders will be disciplined.

3.3. Assessment: Students are responsible for all the course materials covered during the lectures and laboratory sessions, printed materials provided by the instructor, or assigned reading materials. Other assessment methods may include, but not limited to, writing an essay, or making a presentation about an assigned topic. During the examination, and while performing any graded assignment, students should follow the standard procedures for the Faculty of Pharmacy general examination rules (SP-A002 – Examination

Regulations), and should refrain from committing any act that fall under academic dishonesty.

3.4. Understanding the requirements: Students should be responsible for seeking the knowledge for the safety requirements while in laboratory sessions to ensure safety of everyone in the laboratory. Also, students should be aware of the relevant Faculty of Pharmacy and Kuwait University policies and procedures concerning, the students' enrollments, progression, graduation, and the use of university facilities.

3.5. Social Media: This include any digital communication platform (e.g. blogs, Facebook, Twitter, Instagram, Snapchat etc.). Students should be reminded with the following points when using social media:

- a. When commenting about the University, the Faculty, staff, or students, the students are expected to act according to the values of professionalism, honesty, fairness, trust, accountability and respect, and it is prohibited to use social media to harass, bully or discriminate against any other individual.
- b. Students should respect confidentiality of information related to assessments and examinations, clients and patients. This includes providing examples of past assignments and examinations to students in preceding years, or posting information about a quiz or an examination that some of the class still have to sit.
- c. Information posted on private social media may become public.
- d. Information about classes, examinations, assessment deadlines, etc. posted by students on social media is not necessarily correct and students are expected to obtain their information from a credible source (e.g. the e-learning site for the course).

3.6. E-mail communication and correspondence: Students are expected to check their official University e-mail frequently to remain informed of University/Faculty-related communications. All communications to staff (academic and administrative) must come from a student's Kuwait University e-mail account.

E-mail Etiquette: When a students use an e-mail they should consider the following points:

- a. Writing an e-mail to a staff member is like writing a professional letter and students should adopt an appropriate language and style.

- b. Once a dialogue has been established, being less formal may be appropriate.
- c. Always include your full name and KU ID number
- d. Start and end appropriately as if writing a formal letter e.g. Dear [Title, Surname] and Regards [Your full name]
- e. Indicate KU name and issue in the Subject line of the e-mail
- f. Use professional language and clearly state your purpose
- g. Check for punctuation, spelling and grammatical errors.
- h. Use capitals when appropriate, do not use SMS style text.
- i. Do not expect to have an immediate response to your e-mails all the time.

Student Feedback: Students are usually asked to complete an online teaching evaluation for each instructor in all courses they are registered. The students should fill out these evaluations and write down any comments they might have regarding the course, the instructor, and the course contents. These evaluations are confidential and the students are expected to complete them with honesty, fairness, trust, accountability and respect. The evaluations are important in improving the teaching-learning process and in the promotion of the teaching staff, so students should take part in this continuous evaluation process.

4. Academic Dishonesty

“Academic dishonesty” includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give unfair academic advantage to the student (such as, but not limited to; submission of essentially the same written assignment for two courses without the prior permission of the instructor, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act.

4.1. Cheating

The acts of cheating include, but not limited to, all the following:

- a. Copying from another student’s examination paper. Also, reproducing all or a part of another student’s homework, essay, or other written assignment for which a grade will be assigned.
- b. Using unauthorized materials such as programmable calculators, smart phones, digital devices, class notes, books, handouts, etc. during an examination.

- c. Possession of unauthorized materials or devices during the examination, even if they were not used, is considered attempted or intended cheating.
- d. Students failing to comply with the examination rules, where to sit, when to start and when to end an examination, that can lead to academic benefits.
- e. Collaborating with or seeking aid from another student during a test or while solving an assignment, when group discussion is not authorized.
- f. Discussing the contents of an examination with another student who will be taking the examination at a later time.
- g. Revealing the contents of an examination, for the purpose of preserving questions for use by other students, when this is not authorized.
- h. Substituting for another person, or permitting another person to substitute for one's self, to take a test or prepare any course-related out-of-class assignment when collaboration is prohibited.
- i. Buying, stealing, soliciting access, or paying individuals to obtain any examination related information, homework solution, assignments, or projects.
- j. Falsifying data, laboratory reports, and/or other academic work.
- k. Misplacing, or damaging the property of the university, if it will lead to unfair academic advantage.
- l. Misrepresenting facts, including providing false grades or information, for obtaining an academic or financial benefit.

In case of suspected cheating cases, the case is investigated according to the Faculty of Pharmacy standard procedures; (SP-A003 – Suspicion of cheating during an examination, assay or project). Kuwait University considers cheating, attempted cheating, and intended cheating as similar offenses which, if confirmed, are punished by a severe penalty.

4.2. Plagiarism

“Plagiarism” includes, but is not limited to, obtaining the published or unpublished work of others by any mean, and submitting it as one's own academic work to get credits. It can be avoided by clearly acknowledging the work of others, so the extent of reliance on the other work is clearly indicated. The materials can be directly quoted if it is brief, or clearly cited if it is a summary or a paraphrase of other's work. Also, a student should not submit all or major part of the same work product to be graded in more than one class without the instructor's knowledge.

When Plagiarism is suspected, the case is investigated. If confirmed, the

instructor will choose an appropriate penalty depending on the severity of the case.

4.3. Collusion vs. Collaboration

“Collusion” includes, but is not limited to, the unauthorized collaboration with another person, student or non-student, in preparing academic assignments offered for credit or collaboration with another person in any matter that can lead to scholastic dishonesty.

Although collaborative learning and group discussion and interaction are often encouraged outside of class, the instructor may give assignments that should be completed by the students individually or in small group. So, it is the responsibility of the instructor to provide clear instructions on the extent of collaboration that is acceptable, and it is the responsibility of the student to understand and to conform to those instructions.

4.4. Falsifying Academic Records

“Falsifying Academic Records” includes, but is not limited to, the altering or assisting in the altering of grades or other falsification of academic records.

5. Oath of Pharmacy

“I promise to devote myself to a lifetime of service to others through the profession of pharmacy. In fulfilling this vow:

- I will consider the welfare of humanity and relief of suffering my primary concerns.
- I will apply my knowledge, experience, and skills to the best of my ability to assure optimal outcomes for my patients.
- I will respect and protect all personal and health information entrusted to me.
- I will accept the lifelong obligation to improve my professional knowledge and competence.
- I will hold myself and my colleagues to the highest principles of our profession’s moral, ethical and legal conduct.
- I will embrace and advocate changes that improve patient care.
- I will utilize my knowledge, skills, experiences, and values to prepare the next generation of pharmacists.

I take these vows voluntarily with the full realization of the responsibility with

which I am entrusted by the public.”

6. Breach of the Code of Conduct

Any case of breaching the code of conduct by exhibiting behavior which is not consistent with the professionalism guidelines in academic, professional or administrative settings, will be investigated by a committee consists of three faculty members who are involved/aware of the incidence. The committee prepares a report documenting the details (who, what, when, and where) of the incidence, the student(s) involved, and the course or setting where the incidence happen, and suggests a penalty for the student(s) involved. The report is send to the Dean of the FoP. The Dean, if he deems necessary, may consult with faculty members to choose the appropriate penalty which can range from advice and guidance, verbal warning, written warning, informing the student guardians. In case of serious incidences, or repeated misconduct by the same student the incidence can be reported to Kuwait University misconduct investigation committee (لجنة النظام الجامعي). The report of the incidence is kept in the student file.

7. Pledge and Oath

Upon entering the Faculty of Pharmacy, Kuwait University, each student will be asked to recite and sign the following pledge:

“As a student of the Faculty of Pharmacy Kuwait University, I have reviewed and understood the Pharmacy Students Code of Conduct. I pledge my full support to this code of Conduct and I will make every effort to follow this code from my first day at the Faculty of Pharmacy.”

(Signature)

Faculty of Pharmacy Standard Procedures

1. Excused Absence Policy

a. Excused Absence from Examinations:

Students will be excused from appearing in scheduled (mid-semester/final) examination only in the following conditions:

- Admission of the student to a governmental hospital as an inpatient, with the authenticated admission document approved by the Unit director and/or hospital director.
- Death of a first-degree family member (father, mother, grandfather, grandmother and siblings) of the student, within three days of the examination date.
- Maternity leaves according to Kuwait University regulations.
- Other extenuating circumstances presented to the Vice-Dean for academic and student affairs and approved by the FoP Student Affair Committee (for midterm examination) or the board of examination and faculty council (for final examination).

A substitute assessment shall be given to students who have an approved excuse for missing the assessment and their actual scored grade will be posted for them. A mark of zero shall be given for any assessment that is missed without proper excuse. Students will be granted FA grade if they fail to appear in the substitute assessment.

Please note:

Medical excuses **will not** be granted in case of inpatient admission to private hospital, presentation to the emergency room in private or governmental hospital, or presentation to polyclinics.

b. Class/laboratory Absence Policy

Attendance of all laboratory/practice/clinical sessions is mandatory. Students missing a session due to an acceptable excuse will have to repeat this session.

The maximum allowable unexcused absence from lectures in a single course is 20% of the total lecture hours, e.g. a course with 3 lectures/week;

- A student gets a first warning after being absent for 3 hours;

- A student gets a final warning after being absent for 6 hours;
- A student missing 9 or more unexcused hours will not be allowed to sit for the final examination and will be granted FA grade.

Acceptable excuses are the same as in case of scheduled (mid-semester/final) examinations.

- Excuses due to extenuating circumstances should be approved by the Student Affairs Committee.
- Documentation for any excuses should be taken to the Student Affairs Office within three days of return to the class.
- It is up to the course coordinator to decide whether to give a mark of zero for missed assessment without the proper excuse, or to reassess the student by holding oral or written examinations.

2. Examination Regulations

- a. Wearing caps and carrying purses are not allowed in the examination and the students will be instructed to remove them before entering the examination hall.
- b. Student should bring their updated University Identification card (picture ID) with them to the examination for proper identification by the invigilators.
- c. The identity of female students who cover their face (wearing niqab) will be checked by a female invigilator in a private place, before the start of the examination.
- d. The students should pack all pens, pencils and other stationaries in a transparent plastic bag/folder, and no opaque pencil cases will be allowed in the examination hall.
- e. The students will be allowed 5 min before the start of the examination for writing their names and ID numbers. Students who fail to write their names on the examination paper or answer sheet before the end of the examination will be subjected to disciplinary action by the examination committee.
- f. During the examination, students are randomly assigned to seats that are numbered and previously determined for each student. Students should sit according to their assigned seat number and changing seats before or during any exam will not be allowed without approval of the chief invigilator, only in extenuating circumstances.
- g. The students are not allowed to leave the examination before 30 minutes of the start of examination time and during the last 15 minutes of the

examination.

- h. Electronic devices are considered cheating tools and are not allowed to accompany the student in the examination venue. Students should not be offended if they were inspected before the start of the examination. This may be necessary to ensure that the students do not have any gadgets in the examination hall which can lead to sanctions if discovered after the start of the examination. Devices that are not allowed in the examination hall include, but not limited to:
 - recording/playing devices
 - mobile phones
 - watches with any function other than showing time
 - ear pieces and head sets
 - pens with any scanning or copying capabilities
- i. The model of the calculators used during the examination should comply with the model specified by the course coordinator (if certain specifications are required). Programmable calculators are not permitted in any examination, and sharing calculators by students during the examination is not permitted.
- j. Official records of attendance in all exams are required to be taken by the invigilators and be kept by the course coordinator. The students are required to sign against their names in ink on these attendance sheets.
- k. Students should not communicate with anyone except an invigilator during an examination.
- l. Students may be allowed to ask questions regarding the exam materials. This is allowed at the discretion of the course coordinator.
- m. Students should not leave their seats during the examination without permission of an invigilator.
- n. Breaking the examination rules will be investigated immediately after the end of examination.
- o. Open Book Examinations:
 - Some open-book examinations do not have any restrictions on printed materials that students can bring to the examination venue with them (e.g. Pharmacology and Therapeutics examinations in the fourth and fifth years).
 - Some other open-book examinations have restrictions for the course materials the students can bring to the examination (e.g. the practical Pharmacy Practice classes in the 3rd, 4th, and 5th years allow the use of BNF during the examination, but no additional information should be written in the BNF that will be

used during the examination). In these practical Pharmacy Practice examinations, the BNF will be randomly checked early during the examination and copies that do not comply with the instructions will be confiscated and clean BNF copies may not be available to give to the students.

- Student should confirm what is allowed and what is not allowed during each open-book examination.
- p. Using the bathroom:
- During examinations, students will not be allowed to go to the bathroom during the first and the last 30 minutes of the examination.
 - Students who go to the bathroom should sign their names in a list provided by the invigilator, and students will not be allowed to go to the bathroom more than once in a given examination, except if they have previously documented medical condition (e.g. diabetes, pregnancy, etc.).
 - Students may be inspected before or after going to the bathroom to check for items left in their pockets.
- q. Cheating, attempted cheating, and intended cheating
- Kuwait University regulations treat actual cheating, trying to cheat, or having the intention to cheat as equal offenses, which have one severe penalty.
 - This mean that copying information from unauthorized course materials to the examination paper during the examination is equally treated as having course materials in possession of the student even without trying to use them.
 - According to Kuwait University and the HSC regulations, after investigation of cheating cases, students found guilty of cheating, attempted cheating, or intended cheating will be granted a grade of “ F “ in all courses of the semester the student is registered in, and the incidence will be recorded in the student file. Students are expelled from the Kuwait University if they are found guilty of cheating, attempted cheating, or intended cheating for a second time.

3. Cheating Procedures

In case of suspected cheating incidences:

- a. The invigilator or assessor consults with the chief invigilator, senior assessor or course coordinator before doing any action, unless the

evidence can be readily destroyed by the student.

- b. If presumption of cheating is judged serious enough, the cheating material is confiscated and the student is not allowed to pursue his/her evaluation. Care should be taken not to disrupt other students.
- c. On the same day of the incident, the chief invigilator writes a report detailing the incident to the Chairman of the relevant department, with a copy to the course coordinator and the Dean. All invigilators present during the incident sign the report. All material relevant to this incident accompanies the report.
- d. If the student has other examinations planned, he (she) is allowed to continue with the other examinations.
- e. As soon as possible, the department chairman forms a committee composed of the course coordinator and two other faculty members from the department. This committee is responsible to investigate if what was done by the student (ex: material confiscated) is relevant to the assessment and could have helped the student have a better mark in this particular exam. Their report is submitted to the Dean.
- f. The Dean, if he deems necessary, convenes the Faculty Examination Committee. The role of this committee is to investigate the incident by meeting with the student(s), invigilators and any other relevant individual, and to come to a clear conclusion. Their conclusion and recommendation is submitted to the Dean.
- g. At the same time, the Dean informs the Dean of admissions and registration that the student(s) is under investigation and that no grades should be entered in the students file nor published, considering that if he/she is found guilty, they will get an F in all courses of the semester.
- h. Based on the Committee's recommendation, the Dean, if he deems necessary, convenes the Faculty Council to discuss the recommendation of the Faculty Examination Committee and to come to a final conclusion. If a conclusion cannot be reached, the Council tasks the Faculty Examination Committee to continue the investigation. The Council's conclusion is communicated with the Dean of admissions and registration of Kuwait University. If no sanction is given, the Dean of admissions and registration has to be informed to release the grades for the student.
- i. If the student is not guilty of cheating, the Faculty takes all necessary actions to complete the examinations process of the student.

4. Dress Code in Clinical and Laboratory Settings

The following regulation was approved by the Vice-President Executive Committee on May 8, 1985 (minute 25/85):

The Faculty of Pharmacy primary concern is for the safety of its students while they are working in its laboratories. The Faculty secondary concern is to ensure that students dress in a manner that reflects the proper practice of the profession of pharmacy. The Faculty of Pharmacy respects and is sensitive to cultural ideologies of its students but cannot compromise on their safety.

a. Female Uniform

- A white-front buttoned lab coat must be worn over garments of suitable length, i.e., not dragging on the floor, or hanging above the knee
- The student's official Faculty of Pharmacy name badge should be attached to the lab coat
- If a hijab is worn, it must be plain and made of approved material; its design and method of wear should ensure the individual's safety in the Faculty's laboratories
- Jewelry should be kept to a minimum
- Fingernails should be kept as short as possible

b. Male Uniform

- A white front-buttoned lab coat must be worn over trousers, shirt and tie and the student's official Faculty of Pharmacy name badge should be attached to the lab coat
- Shorts are not allowed in laboratory
- Fingernails should be kept as short as possible

A student who fails to comply with these regulations will:

- Not be allowed in the faculty's laboratories unless they meet the dress code and the safety requirements
- Be personally advised
- Be given a written warning concerning the consequence of their action that states a specified time in which to comply within
- Be asked to leave the Faculty, a decision which would require approval by the Vice-President's Executive Committee

Governance of Faculty of Pharmacy

The Dean is the chief executive officer of the Faculty of Pharmacy. He is assisted by two Vice-Deans and an Administrative Manager. The Faculty's officers are responsible to the Dean for carrying out the policy decisions of the Faculty Council.

Faculty Council

Mandate:

The Council is responsible for:

1. Planning and implementing issues that improve the teaching and research activities at the faculty.
2. Establishing a faculty policy of student intake
3. Establishing a policy of student transfer with other faculties according to KU guidelines
4. Approving departmental selection nominations of academic staff
5. Approving the promotions of faculty staff
6. Approving departmental scholarship nominations
7. Approving sabbatical leaves for academic staff according to KU guidelines
8. Supervising and following-up faculty committees
9. Approving and posting final student grades at the end of each semester

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments
- One academic staff from the Faculty nominated to represent the interest of each academic rank; Assistant Professors, Associate Professors, and Professors.
- Two members from outside the University appointed by University Council

Meetings:

The faculty council meets at least once at the end of each semester to approve the final examination results. Additional meetings can be scheduled as needed.

Board of Examiners

Mandates:

1. Making a final decision on the exam grades at the end of each academic semester, after receiving them from the Departments through the Vice-Dean of Academic Affairs
2. Approving the Departmental recommendations for awards of distinction

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments

Meetings:

Board of Examiners shall meet at the end of each semester, except summer semester, after the final computation of students' marks for each course.

Dean's Executive Committee

Mandates:

1. General management of the FoP for issues regarding research, academic programs, human resources, organizational structure, etc...
2. Developing yearly strategic plans and a scoreboard with relevant indicators
3. Meeting with committee chairs or working group leaders as appropriate
4. Providing action plans to requests from KU administration

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments
- Director of the OCST
- Administrative Manager
- Head of Public Relations

Meeting:

The Committee shall meet every two weeks, except during July-August period, or at a call of the Chair.

Faculty Selection Committee

Mandate:

1. Approving contract renewals of academic and support staff
2. Discussing and defining the faculty needs with regard to recruitment of new academic and support staff
3. Renewal process of departmental chairmanship or appointment of new departmental chair
4. Reviewing new applications for advertised positions and recommendations from the departmental committees

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments

Faculty Curriculum Committee

Mandate:

1. Reviewing and approving departmental suggestions of existing curricula such as course name, content, sequence and students' assessment
2. Reviewing issues related to new undergraduate and postgraduate curricula

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Vice-Dean, Research and Post-Graduate Studies
- Chairmen of the four Departments
- Student, KPSS representative
- Graduate student representative

Faculty Examination Committee

Mandate:

1. Supervising the conduction of midterm and final exams
2. Ensuring security of exams
3. Supervising the invigilation process
4. Reviewing policies and taking necessary actions in cases of student cheating or absence according to KU guidelines

Composition:

- Vice-Dean Academic and Student Affairs (Chair)
- Three academic Staff members
- Two non-Academic Staff members (student affairs and service Departments)

Faculty of Pharmacy Research Committee

Mandate:

1. Processing and follow-up of all research proposals
2. Communications between the department research committee, PI and Research Sector (RS) at KU through VDPR
3. Discussing and suggesting amendments to PI for his/her proposal before forwarding it for processing and refereeing.
4. Providing the RS with necessary information, if needed, regarding the refereeing process of proposal
5. Coordination with RS in refereeing and evaluating periodic and final reports of research projects not exceeding KD 4000
6. Cooperating with RS in planning and implementing research related activities
7. Identifying the faculty research priorities in consultation with RS

Composition:

- Vice-Dean, Research and Post-Graduate Studies (Chair)
- Four representatives from the four departments (minimum Associate Prof.)

Faculty Scholarship Committee

Mandate:

1. Making decisions regarding scholarship applicants selected by department scholarship committee
2. Making decisions regarding future needs of faculty scholarships based on departmental needs

Composition:

- Dean (Chair)
- Vice-Dean Academic and Student Affairs
- Chairmen of the four Departments

Faculty Postgraduate Studies Committee

Mandate:

1. Implementing all CGS procedures for admission and selection of postgraduate students
2. Communication with CGS for preparation of timetables for student lectures and exams
3. Periodic review of postgraduate program (M.Pharm. Sci) at the Faculty
4. Dissemination of information about the program to encourage application to postgraduate studies
5. Interviewing new candidates for the postgraduate programs

Composition:

- Vice-Dean, Research and Post-Graduate Studies (Chair)
- Three representatives from the different Departments

Faculty Student Affairs Committee

Mandate:

1. Reviewing the rules for acceptable excuses from lectures and labs
2. Preparing teaching and examination timetables
3. Recommending appropriate action in case of student misconduct
4. Reviewing the rules for admission and transfer to the Faculty
5. Dealing with any student request regarding admission and progression

Composition:

- Vice-Dean Academic and Student Affairs (Chair)
- Three academic Staff members
- Student Representative
- Non-Academic staff member

Student-Faculty Joint Committee**Mandate:**

1. Analyzing issues and requests coming from the students regarding the Faculty or from the Faculty regarding students.
2. Proposing solutions to the appropriate body for review and implementation: the DEC for student issues and to KPSS for Faculty issues.

Composition:

- Vice-Dean Academic and Student Affairs (Chair)
- Three academic Staff members
- Four Students representing 2nd, 3rd, 4th, and 5th year students, and nominated by the KPSS.

Other Committees

- Faculty Promotion Committee
- Faculty Publication Committee
- PharmD program Committee
- Faculty Strategic Plan Follow Up Committee
- Faculty Budget Committee
- Faculty Safety Committee
- Faculty Quality Assurance and Assessment Committee (to be created)
- Pharm.D. Implementation Committee
- The Office of Consultations, Studies and Training (OCST) Board
- Continuing Professional Development Committee
- Departments Committees

Student Services

A. HSC Library

The Library is located on the First Floor of Abdulmohsen Al-Abulrazzak HSC. This library seeks to facilitate information flow in support of education, research and patient care; provide health-related information to health professionals, researchers, and students in Kuwait and the Gulf. The library offers, in addition to its open stack collection, a reserve collection, current periodicals, newspapers, government publications and microfilm collections. Reference staff provides instruction and assistance.

Hours of Operation

The following hours apply when classes are in session and during officially scheduled examination periods. Special schedules may be posted for holidays and between semesters.

Academic Semester:	
Sunday - Thursday	8:00 am – 9:00 pm
Friday and Saturday	8:00 am – 9:00 pm [Third floor only]
Semester Break:	
Sunday – Thursday	8:00 am – 2:00 pm 4:00 pm – 9:00 pm
Holy Month of Ramadan:	
Sunday - Thursday	9:00 am – 1:30 pm 8:00 pm – 12:00 midnight
Saturday	9:30 am – 1:30 pm

An Overview of the Library Collections

HSC Library collects materials on clinical and basic research topics in support of University's teaching and research programs in the health sciences.

Periodicals

HSC Library currently subscribes to approximately 1,300 periodicals. These are located in the second floor of the library and arranged alphabetically by title. Periodicals are non-circulating. Current issues of selected titles are located in the current periodical display area. A list of current subscriptions is available at the Reference Desk.

New Resources

HSC Library receives several regional and national newspapers. These are kept in the alcove near the current periodical display area.

Books

HSC Library contains over 11,000 book titles. Books are arranged by call number and are located in Room 5. New books are shelved on the carousels beside the Circulation Desk.

Microfilms

HSC Library has 250 periodical titles on microfilm. Microfilm reader/printers are available in Room 9.

Reserve Collection

The reserve collection is located in Room 5. It includes materials designated by faculty members for use in courses and frequently used core texts.

Reference Collection

The Reference Collection provides quick information in the form of indexes, almanacs, directories, handbooks and numerous guides to bibliographic sources. This collection is located adjacent to the Reference Desk in Room 5 and is available for on-site use only. Materials are arranged by category and therein by call number.

Audiovisual Materials

Videocassettes, slides, laser discs and other audiovisual materials are stored in Room 3. This 1100-item collection is available for on-site viewing or for loan to library members.

Electronic Searching

This is available on site or via or via HSC Home Page.

Membership

Library cards are issued upon presenting a photocopy of a valid Civil ID card and two passport-size photographs. Cards are available to the following:

- HSC Faculty, staff and students
- Health care professionals. There is a deposit of KD 40 for Ministry of Health employees and KD 80 for private sectors employees

Borrowing Privileges and Responsibilities

Library cardholders are entitled to the following borrowing privileges:

- Kuwait University and Faculty Staff: A maximum of ten books may be borrowed for one month. Materials may be renewed twice, unless items are required for another user.
- Health Care Professionals Employed in Kuwait: A maximum number of three books may be borrowed for one month. Materials may be renewed twice, unless items are required for another user.
- Reserved materials may circulate for two working hours or overnight on weekends. Only one reserved item may be borrowed at a time.
- Library users may borrow a copy of non-original audio-visual materials. Up to three items may be borrowed for a period of 3 days.
- To ensure prompt return, fines are charged on overdue materials at the rate of KD 0.100 per day to a maximum of KD 5.000. Borrowers should report lost materials promptly to avoid additional fine charges. The borrower who loses the material is billed for the replacement cost of the item(s) plus a processing charge.

Remote Access of Electronic Journals and Database

- HSC Library Web Page allows access to various electronic database related to pharmacy such as Micromedex Healthcare, Ovid, Clinical Pharmacology, MD Consult, Science Direct, Merck Index, IPA, Cochrane Library, EMBASE, Medline, and ChemOffice Ultra. In addition, HSC Library provides access to several e-books that are relevant to pharmacy education including British Pharmacopoeia, basic calculations in pharmacy, and clinical toxicology.
- All Faculty staff and students have remote access (off-campus access) to all the library catalog resources.

Training for effective use of HSC Library Facilities

HSC Library provides in-place programs, orientations, and sessions to teach students, faculty and preceptor the use of library services. In addition, the library has scheduled training sessions for educational database such as Ovid, Micromedex, Silverplatter, and Internet public access catalog at least once a week. Also, the library can offer non-scheduled training on:

- Search to locate particular material, Pharmacy Database (e.g., Clinical Pharmacology, Micromedex), and Pharmacy Reference Books (e.g., British Pharmacopoeia, Martindale).
- Accessing Electronic Journals and Books (e.g., Physician Desk Reference,

Kuwait Drug Index, Kuwait National Formulary).

- Search and use of the Internet for pharmacy related websites

For more information on HSC Library services and facilities, please visit the following site: <http://horizon.hsc.edu.kw/library/>

B. HSC Computer Center

The HSC Computer Center supports the use of computing and information technology by faculty and students to further the teaching and research goals of the University. The Center's main objective is directed toward the automation of the HSC activities and operations. The Computer Center has been relocated in the basement of the HSC Building. Computer and internet services are provided through a local area network (LAN) which links all offices. The center is a registered in Internet site. The HSC Computer Center website can be consulted for more information.

C. Medical Photography and Illustration Unit

The Medical Photography and Illustration Unit is located in the First Floor of the HSC (FOM Building). The Unit provides illustration and Photography services to HSC faculty for teaching, research and professional meetings. Its services include:

- **Photography**
 - Flat artwork and book copy
 - X-rays, auto-radiograms and gels
 - Portraits, groups and composites
 - Location shots for newsletters, journals and lectures
 - Surgeries
 - Pathological specimens
 - Patients
- **Illustration**
 - Black & white/color slide processing and mounting
 - Computer-generated slides (PowerPoint forms)
 - Slide duplication
 - SVHS video recording of lectures, surgical operations, experiments and patients (for teaching purposes)
 - Conversion of video recordings from NTSC to PAL format
 - Production of poster titles

Users are requested to submit their work orders 7-10 days in advance with a completed request form available in the Unit. Students must have their requests from pre-authorized by their faculty supervisors.

Information Sheet

Faculty of Pharmacy
Abdulmohsen Al-Abdulrazzak Health Sciences Center
Kuwait University
P.O. Box 24923, Safat 13110
Jabriya, Kuwait
Tel: (965) 246-36137
Fax: (965) 253428907
Website: www.hsc.edu.kw/fop
Instagram: [@faculty_of_pharmacykw](https://www.instagram.com/faculty_of_pharmacykw)

Offices' Telephone Numbers

Office:	Ext.:
Dean	36137/36891/36668
Vice-Dean for Academic & Student Affairs	36916/36917
Vice-Dean for Research & Postgraduate Studies	36771/36625
Department of Pharmacology & Therapeutics	36040/36076
Department of Pharmaceutical Chemistry	36158/36055
Department of Pharmaceutics	36072/36066
Department of Pharmacy Practice	36065/36254
Administrative Manager	36618/36136
Supervisor	36165/36081
Chief Technicians	36175/36842
Finance	36053/36225/36921
Student Affairs	36647/36880/36178/36902
Academic Staff Affairs	36890/36894
Personnel	36266/36619/36498
Services & Follow-up	36886/36077/36393

For more information, please contact:

Noor Al-Saffar
Public Relations Department
Tel: 246-36496
E-mail: noor.alsaffar@hsc.edu.kw

Academic Calendar 2019-2020

Semester 1	
Event:	Date:
Resit exams (2018/2019 - 2 nd semester)	Sunday 23-6-2019 - Thursday 27-6-2019
Teaching	Sunday 8-9-2019 - Thursday 17-10-2019
Mid-term exams	Sunday 20-10-2019 - Thursday 31-10-2019
Teaching	Sunday 3-11-2019 - Thursday 19-12-2019
Final exams	Sunday 22-12-2019 - Thursday 2-1-2020
Board of Examiners meeting	Wednesday 8-1-2020
Faculty Council meeting	Thursday 9-1-2020
Mid-semester break	Sunday 12-1-2020 - Thursday 23-1-2020
Resit exams (2019/2020 - 1 st semester)	Sunday 19-1-2020 - Thursday 23-1-2020

Semester 2	
Event:	Date:
First day of 2 nd semester	Sunday 26-1-2020
Teaching	Sunday 26-1-2020 - Thursday 12-3-2020
National Day Holiday	Tuesday 25-2-2020 - Wednesday 26-2-2020
Mid-term exams	Sunday 15-3-2020 - Thursday 26-3-2020
Teaching	Sunday 29-3-2020 - Thursday 7-5-2020
Final exams	Sunday 10-5-2020 - Thursday 21-5-2020
Eid Break	Sunday 24-5-2020 - Tuesday 26-5-2020
Board of Examiners meeting	Thursday 2-6-2020
Faculty Council meeting	Wednesday 3-6-2020
Resit exams (2019-2020 - 2 nd semester)	Sunday 14-6-2020 - Thursday 18-6-2020

First day of 1 st semester 2020 /2021	Sunday 6-9-2020
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